

Supplemental Information for:

**Parallel Multiplicative Target Screening Against Diverse  
Bacterial Replicases: Identification of Specific Inhibitors  
with Broad Spectrum Potential**

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Casey Pope, Marcos Oliveira, Peter M. J. Burgers, Laurie S. Kaguni and Charles S. McHenry\**

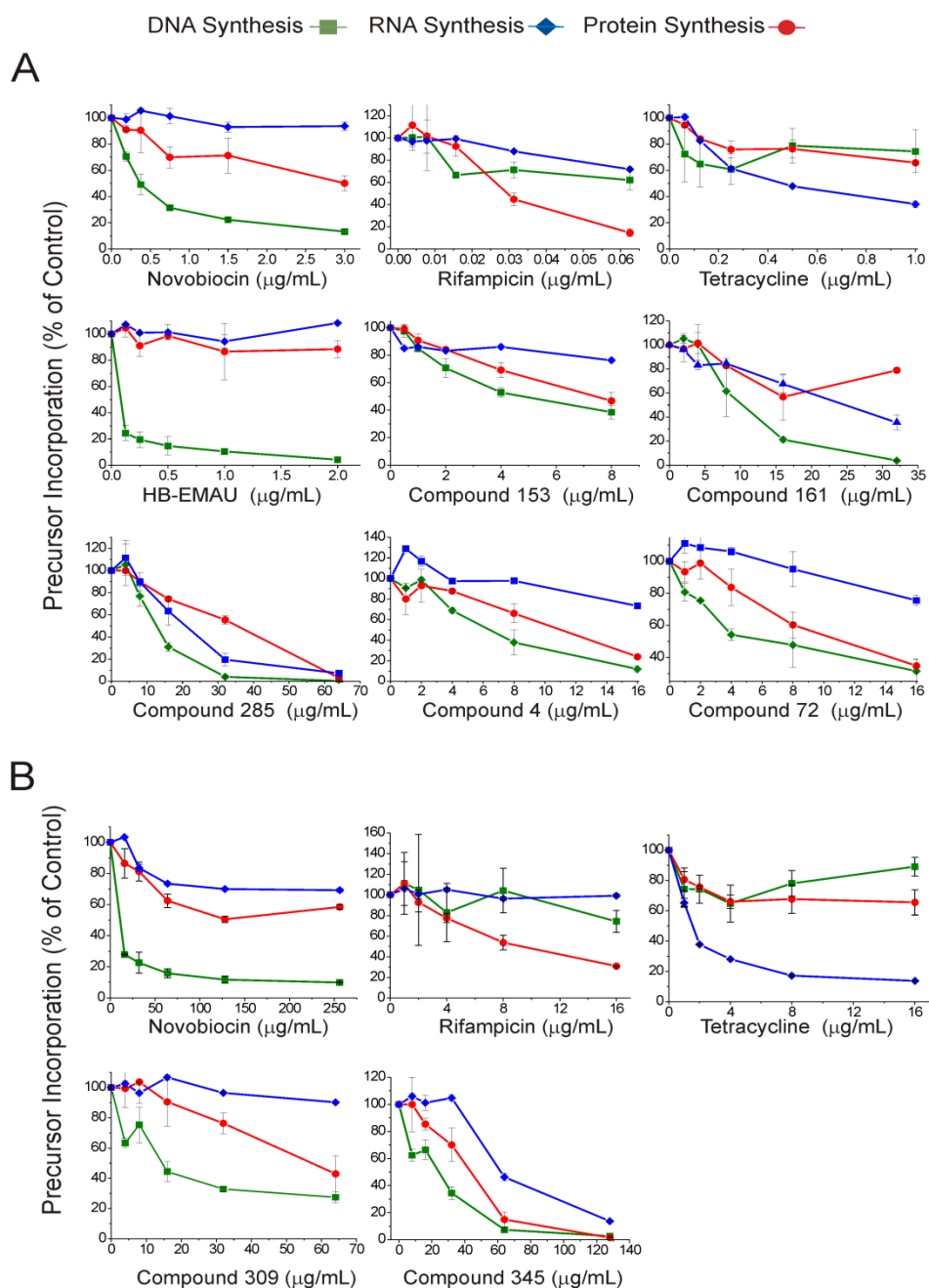
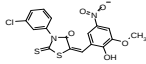
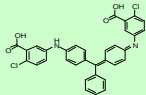
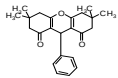
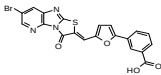
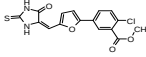
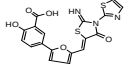
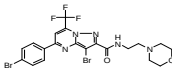
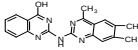
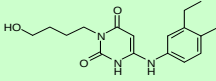
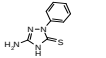
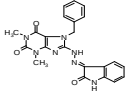
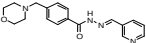
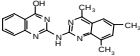
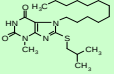
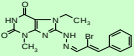
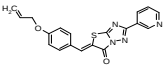
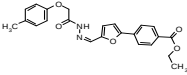
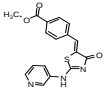
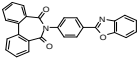
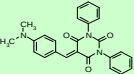
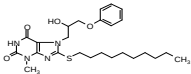
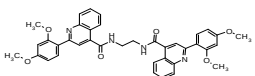
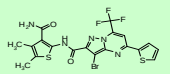
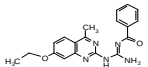
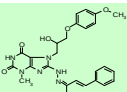
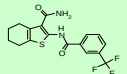
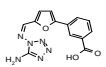
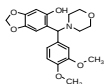
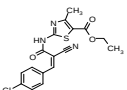
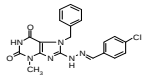
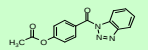


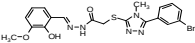
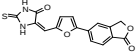
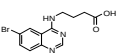
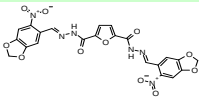
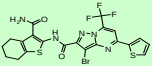
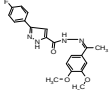
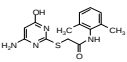
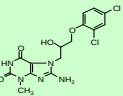
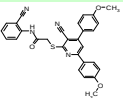
Figure S1. Compounds that Selectively Inhibit *B. subtilis* or *E. coli* Macromolecular Synthesis. MMS assays were performed as described in Supplemental Methods. Test compounds were titrated in duplicate 2-fold serial dilutions starting at 4-times the compound MIC against the particular test organism. Compounds were scored as cellular inhibitors of DNA replication when at least one dilution predominantly inhibited the incorporation of [methyl-<sup>3</sup>H] thymidine than the other macromolecule precursors. Results were confirmed in replicate experiments. A. Controls and test compounds inhibiting DNA replication in *B. subtilis*. B. Controls and test compounds inhibiting DNA replication in *E. coli*.

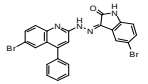
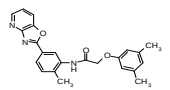
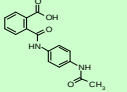
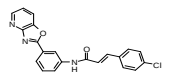
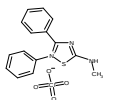
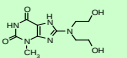
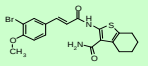
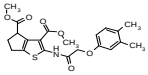
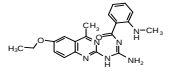
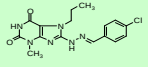
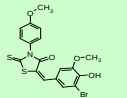
**Table S1. Inhibitors of Bacterial DNA Replicases.** The table shows biochemical and microbiological potency data for the 394 compounds identified in the bacterial replicase screens plus the known *B. subtilis* PolC inhibitor HB-EMAU (compound #13). All molecules referred to in the text are highlighted in light green. IC<sub>50</sub> values for all bacterial replicase assays (Ec, *E. coli* replicase; Bs, *B. subtilis* replicase) and all specificity assays (DNA binding, IDD assay; T7, T7 DNA polymerase; T4, T4 DNA polymerase; Pol  $\delta$ , *S. cerevisiae* DNA Pol  $\delta$ ; Pol  $\gamma$ , human mitochondrial DNA Polymerase; Apy, Apyrase ATPase; RNA Pol, *E. coli* RNA polymerase core;  $\beta$ -Gal,  $\beta$ -galactosidase) are shown. The column entitled “Enzyme Specificity” indicates the relative enzymatic specificities of all compounds tested (Bact HE represents compounds specific for either bacterial replicase within the criteria described in *Results*). The column entitled “Replicase Specificity” indicates whether compounds specific for the bacterial replicases are organism specific (*E. coli* or *B. subtilis*) or broad spectrum. All bacterial replicase assays were conducted as described in *Experimental Procedures*. All specificity assays were conducted as described in Supplemental Methods. IC<sub>50</sub> values containing a “>” sign indicate that the compound did not inhibit the assay by more than 50% at the highest compound concentration tested. Likewise, MIC values of >512 indicate no visible growth inhibition at the highest compound concentration tested. Blank entries in the *E. coli* and *B. subtilis* MIC tables indicate that the compound was not tested in these assays. The column entitled “MMS Assay Specificity” indicates whether compounds were tested in the MMS assays described in Supplemental Methods and whether they scored as specific inhibitors of cellular DNA replication in one of the test organisms (*E. coli* or *B. subtilis*) or were non-specific. All abbreviations are the same used in Table 1 of the main paper.

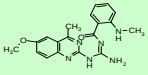
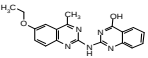
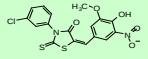
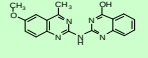
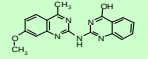
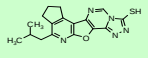
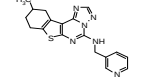
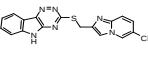
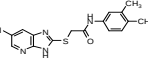
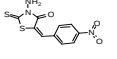
| Comp # | STRUCTURE                                                                           | DNA Pol III Holoenzyme IC50 (μM) |             | Specificity Assay IC50 (μM) |       |       |       |       |       |         |        | Biochemical Specificity |                       | Antimicrobial Activity MIC (μg/mL) |                        |                       |
|--------|-------------------------------------------------------------------------------------|----------------------------------|-------------|-----------------------------|-------|-------|-------|-------|-------|---------|--------|-------------------------|-----------------------|------------------------------------|------------------------|-----------------------|
|        |                                                                                     | <i>E. c</i>                      | <i>B. s</i> | DNA Binding                 | T7    | T4    | Pol δ | Pol γ | Apy   | RNA Pol | β -Gal | Enzyme Specificity      | Replicase Specificity | <i>E. c.</i> ATCC 25922            | <i>B. s.</i> ATCC 6633 | MMS Assay Specificity |
| 1      |    | 0.8                              | 6.0         | 24.5                        | 8.0   | 4.1   | 4.1   | 26.2  | > 300 | > 300   | > 300  | Bact HE                 | E. coli               |                                    |                        |                       |
| 2      |    | 0.8                              | 0.8         | 63.9                        | 25.6  | 19.6  | 5.6   | 35.7  | 17.3  | 71.1    | > 300  | Bact HE                 | Broad                 | >512                               | >512                   |                       |
| 3      |    | 25.0                             | 4.6         | 208                         | 50.1  | 30.5  | > 300 | 40.0  | > 300 | 45.3    | 147    | Bact HE                 | B. subtilis           |                                    |                        |                       |
| 4      |    | 9.4                              | 24.6        | 146                         | 50.0  | 70.5  | 90.0  | 79.2  | > 300 | 150     | > 300  | Bact HE                 | Broad                 | >512                               | 64                     | DNA Replication       |
| 5      |    | 2.4                              | 30.8        | 119                         | 43.5  | 103   | 134   | 112   | > 300 | > 300   | > 300  | Bact HE                 | E. coli               | >512                               | >512                   |                       |
| 6      |    | 20.1                             | 45.4        | > 300                       | 230   | > 300 | 111   | 155   | > 300 | > 300   | > 300  | Bact HE                 | Broad                 | 512                                | 512                    |                       |
| 7      |    | 12.3                             | 61.7        | 183                         | 100   | 144   | 69.9  | 235   | > 300 | > 300   | > 300  | Bact HE                 | E. coli               | >512                               | >512                   |                       |
| 8      |   | 1.3                              | 3.2         | 20.5                        | 9.1   | 45.8  | 8.9   | 243   | 300   | > 300   | > 300  | Bact HE                 | Broad                 | >512                               | >512                   |                       |
| 9      |  | 1.7                              | 4.6         | 46.6                        | 10.3  | 58.3  | 14.0  | 263   | 300   | 50.0    | > 300  | Bact HE                 | Broad                 | >512                               | >512                   |                       |
| 10     |  | 10.8                             | 25.8        | 116                         | 82.8  | 90.7  | 300   | > 300 | 160   | 120     | > 300  | Bact HE                 | E. coli               | >512                               | >512                   |                       |
| 11     |  | 112                              | > 300       | > 300                       | > 300 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | E. coli               | >512                               | >512                   |                       |
| 12     |  | > 300                            | 0.9         | > 300                       | > 300 | > 300 | 150   | > 300 | > 300 | > 300   | > 300  | Bact HE                 | B. subtilis           | >512                               | >512                   |                       |
| 13     |  | > 300                            | 0.10        | > 300                       | > 300 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | B. subtilis           | >512                               | 1                      | DNA Replication       |

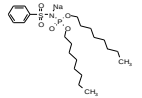
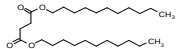
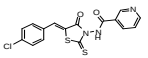
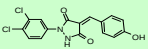
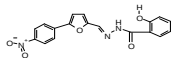
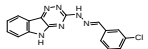
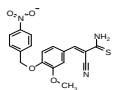
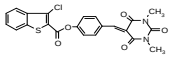
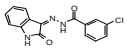
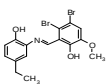
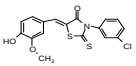
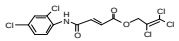
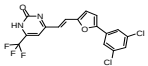
| Comp # | STRUCTURE                                                                           | DNA Pol III Holoenzyme IC50 (μM) |             | Specificity Assay IC50 (μM) |       |       |       |       |       |         |        | Biochemical Specificity |                       | Antimicrobial Activity MIC (μg/mL) |                        |                       |
|--------|-------------------------------------------------------------------------------------|----------------------------------|-------------|-----------------------------|-------|-------|-------|-------|-------|---------|--------|-------------------------|-----------------------|------------------------------------|------------------------|-----------------------|
|        |                                                                                     | <i>E. c</i>                      | <i>B. s</i> | DNA Binding                 | T7    | T4    | Pol δ | Pol γ | Apy   | RNA Pol | β -Gal | Enzyme Specificity      | Replicase Specificity | <i>E. c.</i> ATCC 25922            | <i>B. s.</i> ATCC 6633 | MMS Assay Specificity |
| 14     |    | 116                              | 2.4         | > 300                       | > 300 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | <i>B. subtilis</i>    | 512                                | 8                      | Nonspecific           |
| 15     |    | > 300                            | 4.0         | > 300                       | > 300 | > 300 | 300   | > 300 | > 300 | 140     | > 300  | Bact HE                 | <i>B. subtilis</i>    | >512                               | >512                   |                       |
| 16     |    | 12.1                             | 4.3         | > 300                       | > 300 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | Broad                 | >512                               | >512                   |                       |
| 17     |    | > 300                            | 4.6         | > 300                       | > 300 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | <i>B. subtilis</i>    | >512                               | >512                   |                       |
| 18     |    | > 300                            | 8.2         | > 300                       | > 300 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | <i>B. subtilis</i>    | 512                                | 256                    | Nonspecific           |
| 19     |    | > 300                            | 8.7         | > 300                       | > 300 | > 300 | 300   | > 300 | > 300 | > 300   | > 300  | Bact HE                 | <i>B. subtilis</i>    |                                    |                        |                       |
| 20     |    | 22.3                             | 8.7         | 275                         | > 300 | > 300 | 95.8  | 300   | > 300 | > 300   | > 300  | Bact HE                 | Broad                 | >512                               | >512                   |                       |
| 21     |   | > 300                            | 8.8         | > 300                       | > 300 | > 300 | 300   | > 300 | > 300 | > 300   | > 300  | Bact HE                 | <i>B. subtilis</i>    | >512                               | >512                   |                       |
| 22     |  | 25.6                             | 10.3        | > 300                       | > 300 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | Broad                 | 512                                | >512                   |                       |
| 23     |  | 22.8                             | 11.0        | > 300                       | > 300 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | Broad                 |                                    |                        |                       |
| 24     |  | > 300                            | 14.3        | > 300                       | > 300 | > 300 | > 300 | > 300 | 300   | > 300   | > 300  | Bact HE                 | <i>B. subtilis</i>    | >512                               | >512                   |                       |
| 25     |  | > 300                            | 15.3        | > 300                       | > 300 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | <i>B. subtilis</i>    | >512                               | >512                   |                       |
| 26     |  | > 300                            | 20.5        | > 300                       | > 300 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | <i>B. subtilis</i>    | >512                               | >512                   |                       |

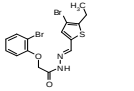
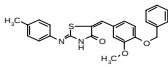
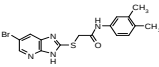
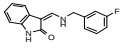
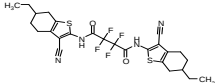
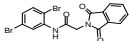
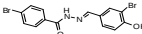
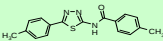
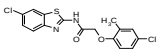
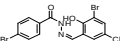
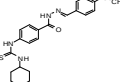
| Comp # | STRUCTURE                                                                           | DNA Pol III Holoenzyme IC50 (μM) |             | Specificity Assay IC50 (μM) |       |       |       |       |       |         |        | Biochemical Specificity |                       | Antimicrobial Activity MIC (μg/mL) |                        |                       |
|--------|-------------------------------------------------------------------------------------|----------------------------------|-------------|-----------------------------|-------|-------|-------|-------|-------|---------|--------|-------------------------|-----------------------|------------------------------------|------------------------|-----------------------|
|        |                                                                                     | <i>E. c</i>                      | <i>B. s</i> | DNA Binding                 | T7    | T4    | Pol δ | Pol γ | Apy   | RNA Pol | β -Gal | Enzyme Specificity      | Replicase Specificity | <i>E. c.</i> ATCC 25922            | <i>B. s.</i> ATCC 6633 | MMS Assay Specificity |
| 27     |    | > 300                            | 21.2        | > 300                       | > 300 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | B. subtilis           |                                    |                        |                       |
| 28     |    | 59.9                             | 22.3        | > 300                       | > 300 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | Broad                 | >512                               | >512                   |                       |
| 29     |    | 25.2                             | 25.2        | 175                         | > 300 | > 300 | 147   | > 300 | > 300 | > 300   | > 300  | Bact HE                 | Broad                 | >512                               | >512                   |                       |
| 30     |    | > 300                            | 28.9        | > 300                       | > 300 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | B. subtilis           | >512                               | >512                   |                       |
| 31     |    | 18.8                             | 30.0        | > 300                       | > 300 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | Broad                 | >512                               | >512                   |                       |
| 32     |    | 71.9                             | 30.3        | > 300                       | > 300 | > 300 | 300   | > 300 | > 300 | > 300   | > 300  | Bact HE                 | B. subtilis           | 512                                | >512                   |                       |
| 33     |    | 260                              | 35.0        | > 300                       | > 300 | > 300 | 180   | > 300 | > 300 | > 300   | > 300  | Bact HE                 | B. subtilis           | >512                               | >512                   |                       |
| 34     |   | 15.0                             | 39.7        | 223                         | > 300 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | Broad                 | 512                                | >512                   |                       |
| 35     |  | > 300                            | 40.0        | > 300                       | > 300 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | B. subtilis           | >512                               | >512                   |                       |
| 36     |  | 76.7                             | 43.0        | > 300                       | > 300 | > 300 | 300   | > 300 | > 300 | > 300   | > 300  | Bact HE                 | Broad                 |                                    |                        |                       |
| 37     |  | > 300                            | 45.2        | > 300                       | > 300 | > 300 | 303   | > 300 | 300   | > 300   | > 300  | Bact HE                 | B. subtilis           | >512                               | >512                   |                       |
| 38     |  | 36.1                             | 48.8        | > 300                       | > 300 | > 300 | 300   | > 300 | > 300 | > 300   | > 300  | Bact HE                 | Broad                 | >512                               | >512                   |                       |
| 39     |  | 2.7                              | 62.9        | > 300                       | > 300 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | E. coli               | 512                                | >512                   |                       |

| Comp # | STRUCTURE                                                                           | DNA Pol III Holoenzyme IC50 (μM) |             | Specificity Assay IC50 (μM) |       |       |       |       |       |         |        | Biochemical Specificity |                       | Antimicrobial Activity MIC (μg/mL) |                        |                       |
|--------|-------------------------------------------------------------------------------------|----------------------------------|-------------|-----------------------------|-------|-------|-------|-------|-------|---------|--------|-------------------------|-----------------------|------------------------------------|------------------------|-----------------------|
|        |                                                                                     | <i>E. c</i>                      | <i>B. s</i> | DNA Binding                 | T7    | T4    | Pol δ | Pol γ | Apy   | RNA Pol | β -Gal | Enzyme Specificity      | Replicase Specificity | <i>E. c.</i> ATCC 25922            | <i>B. s.</i> ATCC 6633 | MMS Assay Specificity |
| 40     |    | 26.5                             | 90.0        | > 300                       | > 300 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | E. coli               | 512                                | >512                   |                       |
| 41     |    | 21.4                             | 133         | > 300                       | > 300 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | E. coli               | >512                               | >512                   |                       |
| 42     |    | 36.2                             | 137         | > 300                       | > 300 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | E. coli               | >512                               | >512                   |                       |
| 43     |    | 9.2                              | 159         | > 300                       | > 300 | > 300 | 50.0  | > 300 | > 300 | > 300   | > 300  | Bact HE                 | E. coli               | >512                               | >512                   |                       |
| 44     |    | 45.3                             | 180         | > 300                       | > 300 | > 300 | 296   | > 300 | > 300 | > 300   | > 300  | Bact HE                 | E. coli               | 512                                | >512                   |                       |
| 45     |    | 13.4                             | 192         | 300                         | > 300 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | E. coli               | >512                               | >512                   |                       |
| 46     |    | 11.0                             | > 300       | > 300                       | > 300 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | E. coli               | >512                               | >512                   |                       |
| 47     |   | 52.9                             | 300         | > 300                       | > 300 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | E. coli               | 512                                | 128                    | Nonspecific           |
| 48     |  | 60.6                             | > 300       | 386                         | > 300 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | E. coli               | >512                               | >512                   |                       |
| 49     |  | 74.6                             | > 300       | > 300                       | > 300 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | E. coli               | >512                               | >512                   |                       |
| 50     |  | 38.6                             | > 600       | > 600                       | > 300 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | E. coli               | 512                                | 512                    |                       |
| 51     |  | 28.6                             | 22.3        | > 300                       | 250   | > 300 | 300   | > 300 | 250   | > 300   | > 300  | Bact HE                 | Broad                 | >512                               | >512                   |                       |
| 52     |  | 81.9                             | 37.0        | 312                         | 250   | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | Broad                 |                                    |                        |                       |

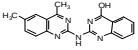
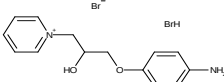
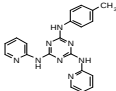
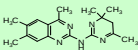
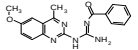
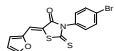
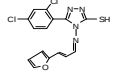
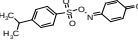
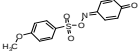
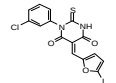
| Comp # | STRUCTURE                                                                           | DNA Pol III Holoenzyme IC50 (μM) |             | Specificity Assay IC50 (μM) |      |       |       |       |       |         |        | Biochemical Specificity |                       | Antimicrobial Activity MIC (μg/mL) |                        |                       |
|--------|-------------------------------------------------------------------------------------|----------------------------------|-------------|-----------------------------|------|-------|-------|-------|-------|---------|--------|-------------------------|-----------------------|------------------------------------|------------------------|-----------------------|
|        |                                                                                     | <i>E. c</i>                      | <i>B. s</i> | DNA Binding                 | T7   | T4    | Pol δ | Pol γ | Apy   | RNA Pol | β -Gal | Enzyme Specificity      | Replicase Specificity | <i>E. c.</i> ATCC 25922            | <i>B. s.</i> ATCC 6633 | MMS Assay Specificity |
| 53     |    | 54.0                             | 7.5         | > 300                       | 169  | > 300 | > 300 | > 300 | 300   | > 300   | > 300  | Bact HE                 | B. subtilis           | 256                                | 32                     | Nonspecific           |
| 54     |    | > 300                            | 32.4        | > 300                       | 159  | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | B. subtilis           | 512                                | >512                   |                       |
| 55     |    | 212                              | 18.7        | 212.3                       | 150  | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | B. subtilis           | >512                               | >512                   |                       |
| 56     |    | 5.6                              | 86.0        | > 300                       | 110  | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | E. coli               | >512                               | >512                   |                       |
| 57     |    | 103                              | 8.6         | > 300                       | 83.6 | > 300 | > 300 | > 300 | > 300 | 151     | > 300  | Bact HE                 | B. subtilis           | >512                               | >512                   |                       |
| 58     |    | 54.2                             | 10.3        | > 300                       | 80.4 | > 300 | > 300 | > 300 | > 300 | 200     | > 300  | Bact HE                 | B. subtilis           | 64                                 | 16                     | Nonspecific           |
| 59     |    | 31.2                             | 11.1        | > 300                       | 79.4 | > 300 | > 300 | > 300 | > 300 | > 300   | 80     | Bact HE                 | Broad                 | 256                                | >512                   | Nonspecific           |
| 60     |   | 30.3                             | 7.1         | > 300                       | 77.8 | > 300 | > 300 | > 300 | 133   | > 300   | > 300  | Bact HE                 | Broad                 | 256                                | 64                     | Nonspecific           |
| 61     |  | 46.2                             | 9.4         | > 300                       | 68.1 | 127   | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | Broad                 | >512                               | >512                   |                       |
| 62     |  | > 300                            | 16.8        | > 300                       | 65.5 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | B. subtilis           | >512                               | 32                     | Nonspecific           |
| 63     |  | > 300                            | 3.5         | > 300                       | 38.7 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                 | B. subtilis           | >512                               | >512                   |                       |
| 64     |  | 16.7                             | 6.5         | > 300                       | 35.6 | > 300 | 300   | > 300 | 51.7  | > 300   | > 300  | Bact HE                 | Broad                 | 512                                | >512                   |                       |
| 65     |  | 6.0                              | 3.0         | 33.0                        | 31.8 | 57.2  | 36.6  | > 300 | 300   | > 300   | > 300  | Bact HE                 | Broad                 | >512                               | >512                   |                       |

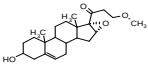
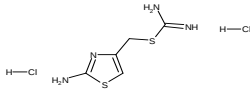
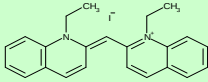
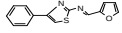
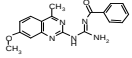
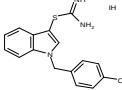
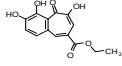
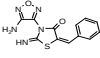
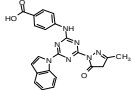
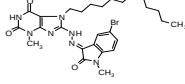
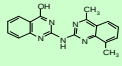
| Comp # | STRUCTURE                                                                           | DNA Pol III Holoenzyme IC50 (μM) |             | Specificity Assay IC50 (μM) |       |       |       |       |       |         |        | Biochemical Specificity          |                       | Antimicrobial Activity MIC (μg/mL) |                        |                       |
|--------|-------------------------------------------------------------------------------------|----------------------------------|-------------|-----------------------------|-------|-------|-------|-------|-------|---------|--------|----------------------------------|-----------------------|------------------------------------|------------------------|-----------------------|
|        |                                                                                     | <i>E. c</i>                      | <i>B. s</i> | DNA Binding                 | T7    | T4    | Pol δ | Pol γ | Apy   | RNA Pol | β -Gal | Enzyme Specificity               | Replicase Specificity | <i>E. c.</i> ATCC 25922            | <i>B. s.</i> ATCC 6633 | MMS Assay Specificity |
| 66     |    | 54.1                             | 5.7         | 215                         | 30.7  | 240   | 123   | 300   | > 300 | 245     | > 300  | Bact HE                          | B. subtilis           | 8                                  | 16                     | Nonspecific           |
| 67     |    | > 300                            | 1.3         | > 300                       | 28.0  | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                          | B. subtilis           | >512                               | >512                   |                       |
| 68     |    | > 300                            | < 1.0       | > 300                       | 18.9  | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                          | B. subtilis           | >512                               | >512                   |                       |
| 69     |    | 0.9                              | 0.9         | 55.4                        | 11.3  | 14.6  | 4.5   | > 300 | 8.1   | 129     | > 300  | Bact HE                          | Broad                 | >512                               | >512                   |                       |
| 70     |    | 1.3                              | 3.2         | > 300                       | 10.2  | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | Bact HE                          | Broad                 | >512                               | 8                      | Nonspecific           |
| 71     |    | 20.5                             | 1.1         | > 300                       | 5.9   | > 300 | 7.7   | > 300 | > 300 | > 300   | > 300  | Bact HE                          | B. subtilis           | >512                               | 8                      | Nonspecific           |
| 72     |    | 36.2                             | 28.9        | 504                         | 197   | > 300 | 266   | 400   | > 600 | > 300   | > 600  | Bact HE                          | Broad                 | 512                                | 64                     | DNA Replication       |
| 73     |   | 81.3                             | 41.7        | > 600                       | 300   | > 300 | > 300 | > 600 | > 300 | > 300   | > 600  | Bact HE                          | Broad                 |                                    |                        |                       |
| 74     |  | 28.9                             | 6.7         | > 600                       | 198   | > 600 | 600   | > 600 | 253   | > 600   | > 600  | Bact HE                          | Broad                 |                                    |                        |                       |
| 75     |  | 17.9                             | 83.7        | 134                         | 159   | 133   | 600   | > 600 | 126   | > 300   | > 600  | Bact HE                          | E. coli               |                                    |                        |                       |
| 76     |  | 25.9                             | 28.0        | 138                         | > 300 | > 300 | 103   | > 300 | 4.1   | 118     | > 300  | Apyrase + Pol δ + RNA Pol Active |                       | >512                               | 32                     | Nonspecific           |
| 77     |  | 24.2                             | 71.6        | 300                         | 30.2  | 49.2  | 68.7  | > 300 | 20.4  | > 300   | > 300  | Apyrase + T7 + Pol δ + T4 Active |                       |                                    |                        |                       |
| 78     |  | 6.7                              | 11.1        | > 300                       | 34.8  | 21.4  | 17.9  | > 300 | 10.7  | > 300   | > 300  | Apyrase + Pol δ + T4 Active      |                       | >512                               | >512                   |                       |

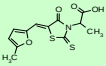
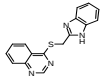
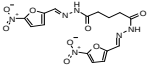
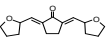
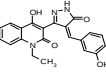
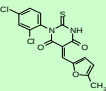
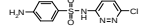
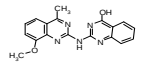
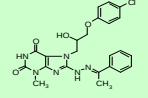
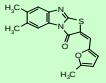
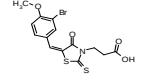
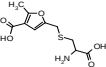
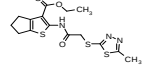
| Comp # | STRUCTURE                                                                           | DNA Pol III Holoenzyme IC50 (μM) |             | Specificity Assay IC50 (μM) |       |       |       |       |      |         |        | Biochemical Specificity          |                       | Antimicrobial Activity MIC (μg/mL) |                        |                       |
|--------|-------------------------------------------------------------------------------------|----------------------------------|-------------|-----------------------------|-------|-------|-------|-------|------|---------|--------|----------------------------------|-----------------------|------------------------------------|------------------------|-----------------------|
|        |                                                                                     | <i>E. c</i>                      | <i>B. s</i> | DNA Binding                 | T7    | T4    | Pol δ | Pol γ | Apy  | RNA Pol | β -Gal | Enzyme Specificity               | Replicase Specificity | <i>E. c.</i> ATCC 25922            | <i>B. s.</i> ATCC 6633 | MMS Assay Specificity |
| 79     |    | 44.0                             | 15.2        | 237                         | 80.5  | > 300 | 21.8  | 100   | 7.0  | > 300   | > 300  | Apyrase + Pol δ Active           |                       |                                    |                        |                       |
| 80     |    | 166                              | 35.4        | > 300                       | > 300 | > 300 | 78.6  | > 300 | 3.2  | > 300   | > 300  | Apyrase + Pol δ Active           |                       |                                    |                        |                       |
| 81     |    | 28.4                             | > 300       | > 300                       | 200   | 67.1  | > 300 | > 300 | 17.0 | 40.0    | > 300  | Apyrase + T4 + RNA Pol Active    |                       |                                    |                        |                       |
| 82     |    | 45.0                             | 15.8        | 76.7                        | 34.1  | 68.9  | 42.3  | 158   | 29.3 | 119     | > 300  | Apyrase + T7 + Pol δ + T4 Active |                       | >512                               | 128                    | Nonspecific           |
| 83     |    | 42.1                             | 37.6        | > 300                       | 57.0  | 94.8  | 53.8  | > 300 | 35.0 | > 300   | > 300  | Apyrase + T7 + Pol δ + T4 Active |                       |                                    |                        |                       |
| 84     |    | 71.8                             | 28.1        | > 300                       | 38.7  | 94.0  | 66.8  | > 300 | 16.5 | > 300   | > 300  | Apyrase + T7 + Pol δ + T4 Active |                       | >512                               | >512                   |                       |
| 85     |    | 250                              | 60.0        | > 300                       | 35.3  | 90.0  | 149   | > 300 | 80.0 | > 300   | > 300  | Apyrase + T7 + Pol δ + T4 Active |                       |                                    |                        |                       |
| 86     |   | 52.9                             | 27.1        | > 300                       | 32.1  | 51.3  | 45.0  | > 300 | 11.2 | > 300   | > 300  | Apyrase + T7 + Pol δ + T4 Active |                       |                                    |                        |                       |
| 87     |  | 50.0                             | 35.0        | 271                         | 26.2  | 28.8  | 56.5  | > 300 | 24.6 | > 300   | > 300  | Apyrase + T7 + Pol δ + T4 Active |                       | >512                               | >512                   |                       |
| 88     |  | 166                              | 21.5        | > 300                       | 25.6  | 64.2  | 45.4  | > 300 | 46.3 | > 300   | > 300  | Apyrase + T7 + Pol δ + T4 Active |                       | >512                               | >512                   |                       |
| 89     |  | 5.0                              | 2.4         | 250                         | 8.2   | 9.5   | 110   | 37.4  | 1.2  | > 300   | > 300  | Apyrase + T7 + T4 Active         |                       |                                    |                        |                       |
| 90     |  | 231                              | 31.0        | > 300                       | 38.8  | 134   | > 300 | > 300 | 2.7  | > 300   | > 300  | Apyrase + T7 + T4 Active         |                       | >512                               | >512                   |                       |
| 91     |  | 29.0                             | 7.5         | > 300                       | 20.0  | 25.1  | > 300 | > 300 | 3.4  | 72.1    | > 300  | Apyrase + T7 + T4 Active         |                       | >512                               | >512                   |                       |

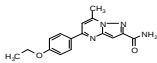
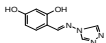
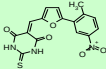
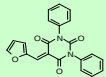
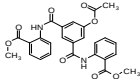
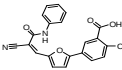
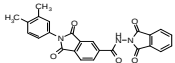
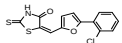
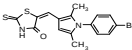
| Comp # | STRUCTURE                                                                           | DNA Pol III Holoenzyme IC50 (μM) |             | Specificity Assay IC50 (μM) |       |       |       |       |      |         |        | Biochemical Specificity  |                       | Antimicrobial Activity MIC (μg/mL) |                        |                       |
|--------|-------------------------------------------------------------------------------------|----------------------------------|-------------|-----------------------------|-------|-------|-------|-------|------|---------|--------|--------------------------|-----------------------|------------------------------------|------------------------|-----------------------|
|        |                                                                                     | <i>E. c</i>                      | <i>B. s</i> | DNA Binding                 | T7    | T4    | Pol δ | Pol γ | Apy  | RNA Pol | β -Gal | Enzyme Specificity       | Replicase Specificity | <i>E. c.</i> ATCC 25922            | <i>B. s.</i> ATCC 6633 | MMS Assay Specificity |
| 92     |    | 300                              | 12.3        | > 300                       | 11.4  | 61.4  | 300   | > 300 | 6.9  | > 300   | > 300  | Apyrase + T7 + T4 Active |                       |                                    |                        |                       |
| 93     |    | 90.4                             | 58.1        | > 300                       | 7.5   | 39.0  | > 300 | > 300 | 180  | > 300   | > 300  | Apyrase + T7 + T4 Active |                       |                                    |                        |                       |
| 94     |    | > 300                            | 23.8        | > 300                       | 7.4   | 28.1  | > 300 | > 300 | 12.0 | 183     | > 300  | Apyrase + T7 + T4 Active |                       | >512                               | >512                   |                       |
| 95     |    | 18.3                             | 265         | > 600                       | 59.3  | 74.2  | 600   | > 600 | 68.2 | > 600   | > 600  | Apyrase + T7 + T4 Active |                       |                                    |                        |                       |
| 96     |    | 48.4                             | 226         | > 300                       | > 300 | > 300 | > 300 | > 300 | 16.9 | > 300   | > 300  | Apyrase Active           |                       | >512                               | >512                   |                       |
| 97     |    | 19.9                             | 63.1        | 197                         | > 300 | > 300 | 257   | > 300 | 49.7 | > 300   | > 300  | Apyrase Active           |                       |                                    |                        |                       |
| 98     |    | 170                              | 71.2        | > 300                       | > 300 | > 300 | > 300 | > 300 | 71.4 | > 300   | > 300  | Apyrase Active           |                       |                                    |                        |                       |
| 99     |   | 74.9                             | 76.3        | 189                         | > 300 | > 300 | > 300 | > 300 | 8.0  | > 300   | > 300  | Apyrase Active           |                       |                                    |                        |                       |
| 100    |  | 22.7                             | 18.8        | > 300                       | > 300 | > 300 | > 300 | > 300 | 0.8  | > 300   | > 300  | Apyrase Active           |                       |                                    |                        |                       |
| 101    |  | 100                              | 19.3        | > 300                       | > 300 | > 300 | > 300 | > 300 | 2.5  | > 300   | > 300  | Apyrase Active           |                       |                                    |                        |                       |
| 102    |  | > 300                            | 23.8        | > 300                       | > 300 | > 300 | > 300 | > 300 | 1.7  | > 300   | > 300  | Apyrase Active           |                       | >512                               | >512                   |                       |
| 103    |  | > 300                            | 29.4        | > 300                       | > 300 | 215   | > 300 | > 300 | 22.6 | > 300   | > 300  | Apyrase Active           |                       | >512                               | 2                      | Nonspecific           |
| 104    |  | 109                              | 29.5        | > 300                       | > 300 | > 300 | > 300 | > 300 | 91.2 | > 300   | > 300  | Apyrase Active           |                       | >512                               | >512                   |                       |

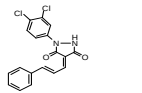
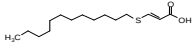
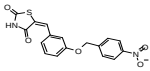
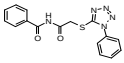
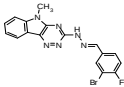
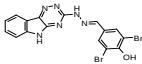
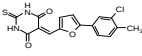
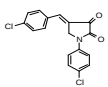
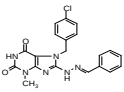
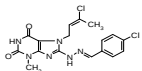
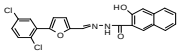
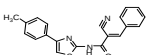
| Comp # | STRUCTURE | DNA Pol III Holoenzyme IC50 (μM) | Specificity Assay IC50 (μM) |             |       |       |       |       |       |         |        |                                               | Biochemical Specificity |                         | Antimicrobial Activity MIC (μg/mL) |                       |  |
|--------|-----------|----------------------------------|-----------------------------|-------------|-------|-------|-------|-------|-------|---------|--------|-----------------------------------------------|-------------------------|-------------------------|------------------------------------|-----------------------|--|
|        |           | <i>E. c</i>                      | <i>B. s</i>                 | DNA Binding | T7    | T4    | Pol δ | Pol γ | Apy   | RNA Pol | β -Gal | Enzyme Specificity                            | Replicase Specificity   | <i>E. c.</i> ATCC 25922 | <i>B. s.</i> ATCC 6633             | MMS Assay Specificity |  |
| 105    |           | 131                              | 50.4                        | > 300       | > 300 | > 300 | > 300 | > 300 | 21.7  | > 300   | > 300  | Apyrase Active                                |                         |                         |                                    |                       |  |
| 106    |           | > 300                            | 13.2                        | > 300       | 134   | > 300 | > 300 | > 300 | 0.8   | > 300   | > 300  | Apyrase Active                                |                         |                         |                                    |                       |  |
| 107    |           | 5.5                              | 7.5                         | > 300       | 70.8  | > 300 | > 300 | > 300 | 4.1   | > 300   | > 300  | Apyrase Active                                |                         |                         |                                    |                       |  |
| 108    |           | 176                              | > 600                       | > 600       | > 600 | > 600 | > 600 | > 600 | 33.8  | > 600   | > 600  | Apyrase Active                                |                         | 512                     | 512                                |                       |  |
| 109    |           | 56.9                             | 127                         | > 600       | > 600 | 300   | 600   | > 600 | 158   | > 600   | > 600  | Apyrase Active                                |                         |                         |                                    |                       |  |
| 110    |           | 53.7                             | 20.6                        | > 300       | > 300 | 285   | 300   | > 300 | 100   | 101     | 78.5   | Beta-Gal + Apyrase + RNA Pol Active           |                         |                         |                                    |                       |  |
| 111    |           | 66.6                             | 30.9                        | > 300       | 51.5  | 40.9  | 300   | > 300 | 1.5   | 78.7    | 25.0   | Beta-Gal + T7 + Apyrase + T4 + RNA Pol Active |                         |                         |                                    |                       |  |
| 112    |           | 151                              | 68.7                        | > 300       | 98.8  | > 300 | > 300 | > 300 | 106   | > 300   | 75     | Beta-Gal + T7 + Apyrase Active                |                         | >512                    | >512                               |                       |  |
| 113    |           | 57.9                             | 72.3                        | > 300       | 10.1  | > 300 | > 300 | > 300 | 100   | > 300   | 25.1   | Beta-Gal + T7 + Apyrase Active                |                         |                         |                                    |                       |  |
| 114    |           | 35.9                             | 300                         | > 300       | 55.0  | 142   | 50.4  | > 300 | > 300 | > 300   | > 300  | T7 + Pol δ + T4 Active                        |                         |                         |                                    |                       |  |
| 115    |           | 28.0                             | 50.1                        | 301         | 123   | 84.4  | 44.8  | > 300 | > 300 | > 300   | 130    | Beta-Gal + T7 + Pol δ + T4 Active             |                         |                         |                                    |                       |  |
| 116    |           | 138                              | 30.0                        | > 300       | 23.5  | 133   | 58.8  | > 300 | > 300 | 200     | 120    | Beta-Gal + T7 + Pol δ + T4 Active             |                         |                         |                                    |                       |  |
| 117    |           | 21.6                             | 84.2                        | > 300       | 66.9  | 70.7  | 213   | 172   | > 300 | > 300   | 138    | Beta-Gal + T7 + T4 Active                     |                         |                         |                                    |                       |  |

| Comp # | STRUCTURE                                                                           | DNA Pol III Holoenzyme IC50 (μM) |             | Specificity Assay IC50 (μM) |      |       |       |       |       |         |        | Biochemical Specificity   |                       | Antimicrobial Activity MIC (μg/mL) |                        |                       |
|--------|-------------------------------------------------------------------------------------|----------------------------------|-------------|-----------------------------|------|-------|-------|-------|-------|---------|--------|---------------------------|-----------------------|------------------------------------|------------------------|-----------------------|
|        |                                                                                     | <i>E. c</i>                      | <i>B. s</i> | DNA Binding                 | T7   | T4    | Pol δ | Pol γ | Apy   | RNA Pol | β -Gal | Enzyme Specificity        | Replicase Specificity | <i>E. c.</i> ATCC 25922            | <i>B. s.</i> ATCC 6633 | MMS Assay Specificity |
| 118    |    | > 300                            | 24.6        | > 300                       | 7.1  | 62.3  | > 300 | > 300 | > 300 | > 300   | 30.8   | Beta-Gal + T7 + T4 Active |                       |                                    |                        |                       |
| 119    |    | 54.9                             | 142         | > 600                       | 140  | > 600 | 513   | > 600 | > 600 | > 600   | 124    | Beta-Gal +T7 Pol Active   |                       | >512                               | >512                   |                       |
| 120    |    | 2.5                              | 10.2        | 126                         | 6.9  | > 300 | 13.5  | 76.8  | 300   | > 300   | 44.1   | Beta-Gal +T7 Pol Active   |                       |                                    |                        |                       |
| 121    |    | 6.1                              | 4.7         | 74.7                        | 0.9  | > 300 | 119   | 80.0  | 119   | > 300   | 5.2    | Beta-Gal +T7 Pol Active   |                       |                                    |                        |                       |
| 122    |    | 8.5                              | 24.6        | > 300                       | 15.0 | > 300 | 100   | > 300 | > 300 | > 300   | 39.4   | Beta-Gal +T7 Pol Active   |                       | 128                                | 32                     | Nonspecific           |
| 123    |    | 56.0                             | 40.6        | > 600                       | 35.4 | > 600 | > 600 | > 600 | > 600 | > 600   | 115    | Beta-Gal +T7 Pol Active   |                       | >512                               | >512                   |                       |
| 124    |    | 141                              | 132         | > 300                       | 38.8 | 67.7  | 21.2  | 153   | 14.7  | 90.7    | 100    | Completely non-specific   |                       | >512                               | >512                   |                       |
| 125    |   | 63.3                             | 96.8        | > 300                       | 27.3 | 149   | 113   | 280   | 19.6  | 42.3    | > 300  | Completely non-specific   |                       | >512                               | >512                   |                       |
| 126    |  | 99.1                             | 207         | > 300                       | 47.7 | 200   | 222   | > 300 | 81.4  | > 300   | 150    | Completely non-specific   |                       |                                    |                        |                       |
| 127    |  | < 0.5                            | 5.3         | 9.2                         | 2.7  | 18.5  | 2.6   | 22.2  | 97.3  | 10.6    | > 300  | Completely non-specific   |                       | >512                               | >512                   |                       |
| 128    |  | 0.2                              | 12.2        | 16.5                        | 3.7  | 75.2  | 12.5  | 108   | 74.3  | 144     | > 300  | Completely non-specific   |                       | >512                               | >512                   |                       |
| 129    |  | 18.8                             | 11.5        | 84.2                        | 18.0 | 12.4  | 8.3   | 56.9  | 23.0  | 65.4    | > 300  | Completely non-specific   |                       | >512                               | >512                   |                       |
| 130    |  | 154                              | 51.8        | > 300                       | 16.8 | 135   | 71.1  | 129.8 | 108   | 250     | > 300  | Completely non-specific   |                       | >512                               | >512                   |                       |

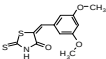
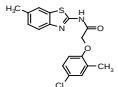
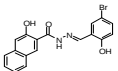
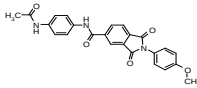
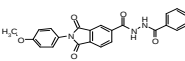
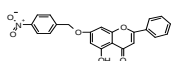
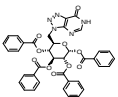
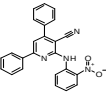
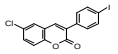
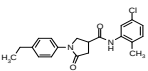
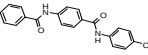
| Comp # | STRUCTURE                                                                           | DNA Pol III<br>Holoenzyme IC50<br>( $\mu\text{M}$ ) | Specificity Assay IC50 ( $\mu\text{M}$ ) |                |       |       |              |              |       |            |              | Biochemical Specificity                                       |                          | Antimicrobial Activity<br>MIC ( $\mu\text{g/mL}$ ) |                              |                             |
|--------|-------------------------------------------------------------------------------------|-----------------------------------------------------|------------------------------------------|----------------|-------|-------|--------------|--------------|-------|------------|--------------|---------------------------------------------------------------|--------------------------|----------------------------------------------------|------------------------------|-----------------------------|
|        |                                                                                     | <i>E. c</i>                                         | <i>B. s</i>                              | DNA<br>Binding | T7    | T4    | Pol $\delta$ | Pol $\gamma$ | Apy   | RNA<br>Pol | $\beta$ -Gal | Enzyme<br>Specificity                                         | Replicase<br>Specificity | <i>E. c.</i><br>ATCC<br>25922                      | <i>B. s.</i><br>ATCC<br>6633 | MMS<br>Assay<br>Specificity |
| 131    |    | 40.0                                                | 59.8                                     | 201            | 42.0  | > 300 | 71.3         | 270          | > 300 | > 300      | 160          | DNA + Beta-Gal<br>+ T7 + Pol $\delta$<br>Active               |                          |                                                    |                              |                             |
| 132    |    | 15.6                                                | 23.8                                     | 75.2           | 16.1  | > 300 | 38.7         | > 300        | > 300 | > 300      | 21.7         | DNA + Beta-Gal<br>+ T7 + Pol $\delta$<br>Active               |                          |                                                    |                              |                             |
| 133    |    | 8.2                                                 | 22.3                                     | 19.5           | 14.2  | 99.4  | 12.0         | > 300        | 198   | 94.5       | 15.8         | DNA + Beta-Gal<br>+ T7 + Pol $\delta$<br>Active               |                          |                                                    |                              |                             |
| 134    |    | 7.5                                                 | 55.5                                     | 89.9           | 6.4   | 4.4   | 57.7         | 21.8         | 33.8  | 30.0       | 82.9         | Completely non-<br>specific                                   |                          |                                                    |                              |                             |
| 135    |    | 56.5                                                | 31.7                                     | > 600          | 186   | > 600 | > 600        | > 600        | > 600 | > 600      | 94.3         | Beta-Gal Active                                               |                          | >512                                               | >512                         |                             |
| 136    |    | 9.7                                                 | 18.7                                     | 56.5           | 5.6   | > 300 | 15.0         | 38.6         | 15.0  | > 300      | > 300        | DNA + T7 +<br>Apyrase + Pol $\delta$<br>+ Pol $\gamma$ Active |                          |                                                    |                              |                             |
| 137    |    | 83.0                                                | 113                                      | 272            | 54.9  | 522   | 128          | > 600        | 117   | 170        | 44.0         | DNA + T7 +<br>Apyrase + Pol $\delta$<br>+ Pol $\gamma$ Active |                          | 8                                                  | 4                            | Nonspecific                 |
| 138    |   | 1.6                                                 | 7.4                                      | 14.4           | 6.6   | 24.7  | 4.9          | 61.9         | 2.2   | 22.8       | > 300        | DNA + T7 +<br>Apyrase + Pol $\delta$<br>Active                |                          | >512                                               | >512                         |                             |
| 139    |  | 5.8                                                 | 39.0                                     | 55.6           | 12.1  | 32.0  | 17.4         | 81.9         | 25.0  | 116        | > 300        | DNA + T7 +<br>Apyrase + Pol $\delta$<br>Active                |                          |                                                    |                              |                             |
| 140    |  | 35.6                                                | 62.1                                     | 139            | 90.2  | > 300 | > 300        | > 300        | 70.2  | > 300      | > 300        | DNA + T7 +<br>Apyrase Active                                  |                          |                                                    |                              |                             |
| 141    |  | 1.3                                                 | 18.2                                     | 11.3           | < 0.5 | 20.0  | > 300        | 20.4         | 180   | 69.3       | > 300        | DNA + T7 Pol<br>Active                                        |                          |                                                    |                              |                             |
| 142    |  | 33.2                                                | 11.4                                     | 30.8           | 19.7  | 64.1  | > 300        | > 300        | > 300 | 150        | > 300        | DNA + T7 Pol<br>Active                                        |                          |                                                    |                              |                             |
| 143    |  | 2.7                                                 | 260                                      | > 300          | > 300 | > 300 | 300          | > 300        | > 300 | > 300      | > 300        | Bact HE                                                       | <i>E. coli</i>           | 128                                                | >512                         | Nonspecific                 |

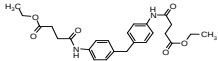
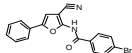
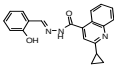
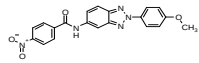
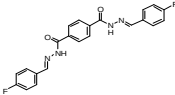
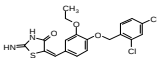
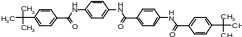
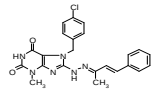
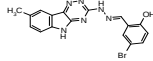
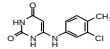
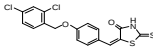
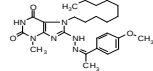
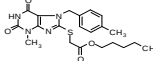
| Comp # | STRUCTURE                                                                           | DNA Pol III Holoenzyme IC50 (μM) |             | Specificity Assay IC50 (μM) |       |       |       |       |       |         |        | Biochemical Specificity |                       | Antimicrobial Activity MIC (μg/mL) |                        |                       |
|--------|-------------------------------------------------------------------------------------|----------------------------------|-------------|-----------------------------|-------|-------|-------|-------|-------|---------|--------|-------------------------|-----------------------|------------------------------------|------------------------|-----------------------|
|        |                                                                                     | <i>E. c</i>                      | <i>B. s</i> | DNA Binding                 | T7    | T4    | Pol δ | Pol γ | Apy   | RNA Pol | β -Gal | Enzyme Specificity      | Replicase Specificity | <i>E. c.</i> ATCC 25922            | <i>B. s.</i> ATCC 6633 | MMS Assay Specificity |
| 144    |    | 66.0                             | 76.2        | > 300                       | > 300 | 20.2  | 174   | > 300 | > 300 | 202     | > 300  | Pol δ + T4 Active       |                       | >512                               | 512                    |                       |
| 145    |    | 50.0                             | > 300       | 498                         | > 300 | > 300 | 211   | > 300 | > 300 | > 300   | > 300  | Pol δ Active            |                       |                                    |                        |                       |
| 146    |    | 37.8                             | 60.1        | > 300                       | 300   | 300   | 113   | 300   | > 300 | 250     | > 300  | Pol δ Active            |                       |                                    |                        |                       |
| 147    |    | 1.1                              | 3.9         | 63.9                        | 7.5   | 21.4  | 3.0   | 64.9  | 117   | 100     | > 300  | Pol δ Active            |                       |                                    |                        |                       |
| 148    |    | 3.0                              | 4.2         | 26.7                        | 55.4  | 69.6  | 9.2   | 85.3  | > 300 | 53.8    | 217    | Pol δ Active            |                       |                                    |                        |                       |
| 149    |    | 43.8                             | 19.2        | 148                         | 135   | 172   | 31.5  | 147   | 161   | > 300   | > 300  | Pol δ Active            |                       | >512                               | 128                    | Nonspecific           |
| 150    |    | 112                              | 139         | 273                         | 109   | 134   | 52.8  | 200   | > 300 | > 300   | > 300  | Pol δ Active            |                       | 256                                | 16                     | Nonspecific           |
| 151    |   | 4.6                              | 3.6         | > 300                       | > 300 | > 300 | 8.3   | > 300 | > 300 | > 300   | > 300  | Pol δ Active            |                       | >512                               | >512                   |                       |
| 152    |  | 12.4                             | 10.5        | > 300                       | > 300 | > 300 | 25.0  | > 300 | > 300 | > 300   | > 300  | Pol δ Active            |                       |                                    |                        |                       |
| 153    |  | 98.7                             | 24.7        | 266                         | > 300 | > 300 | 78.1  | > 300 | > 300 | > 300   | > 300  | Pol δ Active            |                       | 512                                | 128                    | DNA Replication       |
| 154    |  | 38.1                             | 33.4        | > 300                       | > 300 | > 300 | 38.1  | > 300 | > 300 | > 300   | > 300  | Pol δ Active            |                       | >512                               | >512                   |                       |
| 155    |  | 35.8                             | 28.4        | > 300                       | 200   | > 300 | 69.2  | > 300 | > 300 | > 300   | > 300  | Pol δ Active            |                       |                                    |                        |                       |
| 156    |  | 128                              | 24.5        | 238                         | 130   | > 300 | 35.3  | > 300 | 200   | > 300   | > 300  | Pol δ Active            |                       | >512                               | >512                   |                       |

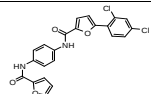
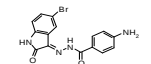
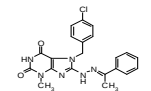
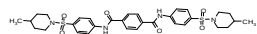
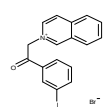
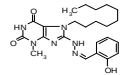
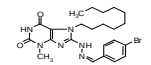
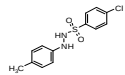
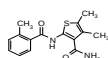
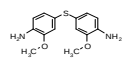
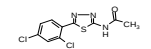
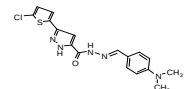
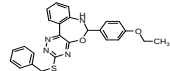
| Comp # | STRUCTURE                                                                           | DNA Pol III Holoenzyme IC50 (μM) |             | Specificity Assay IC50 (μM) |       |       |       |       |       |         |        | Biochemical Specificity               |                       | Antimicrobial Activity MIC (μg/mL) |                        |                       |
|--------|-------------------------------------------------------------------------------------|----------------------------------|-------------|-----------------------------|-------|-------|-------|-------|-------|---------|--------|---------------------------------------|-----------------------|------------------------------------|------------------------|-----------------------|
|        |                                                                                     | <i>E. c</i>                      | <i>B. s</i> | DNA Binding                 | T7    | T4    | Pol δ | Pol γ | Apy   | RNA Pol | β -Gal | Enzyme Specificity                    | Replicase Specificity | <i>E. c.</i> ATCC 25922            | <i>B. s.</i> ATCC 6633 | MMS Assay Specificity |
| 157    |    | 63.0                             | 131         | > 300                       | 100   | > 300 | 119   | > 300 | > 300 | > 300   | > 300  | Pol δ Active                          |                       | >512                               | >512                   |                       |
| 158    |    | 240                              | 65.0        | > 300                       | > 300 | > 300 | 206   | > 300 | > 300 | 300     | > 300  | Pol δ Active                          |                       | 512                                | 512                    |                       |
| 159    |    | 128                              | 300         | > 300                       | > 300 | > 300 | 192   | > 300 | > 300 | > 300   | > 300  | Pol δ Active                          |                       | 512                                | >512                   |                       |
| 160    |    | 168                              | 59.5        | > 300                       | > 300 | > 300 | 300   | > 300 | > 300 | 80.0    | > 300  | RNA Pol Active                        |                       |                                    |                        |                       |
| 161    |    | 61.8                             | 38.3        | > 300                       | 258   | 36.0  | > 300 | > 300 | > 300 | > 300   | > 300  | T4 Active                             |                       | >512                               | 128                    | DNA Replication       |
| 162    |    | 20.4                             | 34.0        | > 300                       | 200   | 2.8   | > 300 | > 300 | > 300 | > 300   | > 300  | T4 Active                             |                       | >512                               | >512                   |                       |
| 163    |    | > 300                            | 7.0         | > 300                       | 128   | 25.0  | > 300 | > 300 | > 300 | > 300   | > 300  | T4 Active                             |                       | >512                               | >512                   |                       |
| 164    |   | 15.4                             | 34.9        | 257                         | 100   | 68.4  | 119   | > 300 | > 300 | > 300   | > 300  | T4 Active                             |                       | >512                               | >512                   |                       |
| 165    |  | 50.0                             | > 300       | > 300                       | > 300 | 43.6  | > 300 | > 300 | > 300 | > 300   | > 300  | T4 Active                             |                       |                                    |                        |                       |
| 166    |  | 22.0                             | 6.3         | 74.7                        | 30.0  | 44.1  | 27.8  | 37.3  | 6.7   | 26.9    | > 300  | T7 + Apyrase + Pol δ + RNA Pol Active |                       | >512                               | >512                   |                       |
| 167    |  | 154                              | > 300       | > 300                       | 38.1  | 32.1  | 109   | > 300 | 33.6  | > 300   | > 300  | T7 + Apyrase + Pol δ + T4 Active      |                       | >512                               | >512                   |                       |
| 168    |  | 13.2                             | 4.0         | > 300                       | 6.3   | 155   | 7.4   | 157   | < 0.5 | 70.3    | 150    | T7 + Apyrase + Pol δ Active           |                       |                                    |                        |                       |
| 169    |  | 31.9                             | 37.7        | 247                         | 124   | > 300 | 75.4  | > 300 | 5.9   | > 300   | > 300  | T7 + Apyrase + Pol δ Active           |                       | >512                               | >512                   |                       |

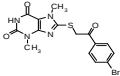
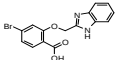
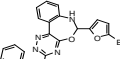
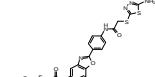
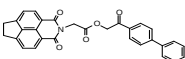
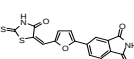
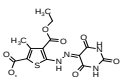
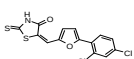
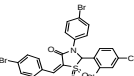
| Comp # | STRUCTURE                                                                           | DNA Pol III Holoenzyme IC50 (μM) |             | Specificity Assay IC50 (μM) |       |       |       |       |      |         |        | Biochemical Specificity     |                       | Antimicrobial Activity MIC (μg/mL) |                        |                       |
|--------|-------------------------------------------------------------------------------------|----------------------------------|-------------|-----------------------------|-------|-------|-------|-------|------|---------|--------|-----------------------------|-----------------------|------------------------------------|------------------------|-----------------------|
|        |                                                                                     | <i>E. c</i>                      | <i>B. s</i> | DNA Binding                 | T7    | T4    | Pol δ | Pol γ | Apy  | RNA Pol | β -Gal | Enzyme Specificity          | Replicase Specificity | <i>E. c.</i> ATCC 25922            | <i>B. s.</i> ATCC 6633 | MMS Assay Specificity |
| 170    |    | 86.8                             | 48.4        | > 300                       | 66.0  | > 300 | 127   | > 300 | 66.0 | > 300   | > 300  | T7 + Apyrase + Pol δ Active |                       |                                    |                        |                       |
| 171    |    | 24.1                             | 18.4        | > 300                       | 50.0  | > 300 | 15.4  | > 300 | 1.3  | > 300   | > 300  | T7 + Apyrase + Pol δ Active |                       |                                    |                        |                       |
| 172    |    | 25.5                             | 18.9        | 159                         | 45.0  | 211   | 31.0  | > 300 | 15.8 | > 300   | > 300  | T7 + Apyrase + Pol δ Active |                       |                                    |                        |                       |
| 173    |    | > 300                            | 43.6        | > 300                       | 37.6  | > 300 | 75.0  | > 300 | 75.0 | > 300   | > 300  | T7 + Apyrase + Pol δ Active |                       |                                    |                        |                       |
| 174    |    | 67.5                             | 29.0        | > 300                       | 37.0  | > 300 | 94.0  | > 300 | 110  | > 300   | > 300  | T7 + Apyrase + Pol δ Active |                       |                                    |                        |                       |
| 175    |    | 9.8                              | 8.2         | 91.6                        | 28.9  | 54.8  | 25.4  | > 300 | 16.9 | > 300   | > 300  | T7 + Apyrase + Pol δ Active |                       | >512                               | >512                   |                       |
| 176    |    | > 300                            | 55.6        | > 300                       | 28.9  | 300   | 155   | > 300 | 2.5  | > 300   | > 300  | T7 + Apyrase + Pol δ Active |                       |                                    |                        |                       |
| 177    |   | 42.7                             | 11.0        | > 300                       | 27.8  | 273   | 37.0  | > 300 | 10.6 | 149     | > 300  | T7 + Apyrase + Pol δ Active |                       | >512                               | >512                   |                       |
| 178    |  | 150                              | 48.9        | > 300                       | 17.6  | > 300 | 14.8  | > 300 | 14.8 | > 300   | > 300  | T7 + Apyrase + Pol δ Active |                       |                                    |                        |                       |
| 179    |  | 78.8                             | 7.7         | > 300                       | 9.4   | > 300 | 33.4  | > 300 | 25.0 | > 300   | > 300  | T7 + Apyrase + Pol δ Active |                       |                                    |                        |                       |
| 180    |  | 7.0                              | 1.9         | > 300                       | < 1.0 | > 300 | 7.9   | > 300 | 7.9  | > 300   | > 300  | T7 + Apyrase + Pol δ Active |                       |                                    |                        |                       |
| 181    |  | 25.4                             | 16.1        | 300                         | 13.6  | > 300 | > 300 | 26.5  | 1.2  | > 300   | > 300  | T7 + Apyrase + Pol γ        |                       |                                    |                        |                       |
| 182    |  | 154                              | 24.0        | > 300                       | 9.0   | > 300 | > 300 | 43.1  | 10.6 | 240     | > 300  | T7 + Apyrase + Pol γ        |                       |                                    |                        |                       |

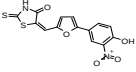
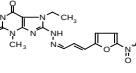
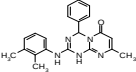
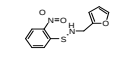
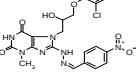
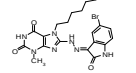
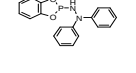
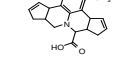
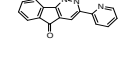
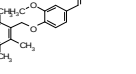
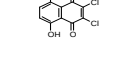
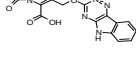
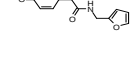
| Comp # | STRUCTURE | DNA Pol III Holoenzyme IC50 (μM) |             | Specificity Assay IC50 (μM) |      |       |       |       |      |         |        | Biochemical Specificity            |                       | Antimicrobial Activity MIC (μg/mL) |                        |                       |
|--------|-----------|----------------------------------|-------------|-----------------------------|------|-------|-------|-------|------|---------|--------|------------------------------------|-----------------------|------------------------------------|------------------------|-----------------------|
|        |           | <i>E. c</i>                      | <i>B. s</i> | DNA Binding                 | T7   | T4    | Pol δ | Pol γ | Apy  | RNA Pol | β -Gal | Enzyme Specificity                 | Replicase Specificity | <i>E. c.</i> ATCC 25922            | <i>B. s.</i> ATCC 6633 | MMS Assay Specificity |
| 183    |           | 250                              | 19.4        | > 300                       | 11.6 | > 300 | 162   | 51.5  | 34.5 | > 300   | > 300  | T7 + Apyrase + Pol γ               |                       | >512                               | >512                   |                       |
| 184    |           | 97.1                             | 12.0        | > 300                       | 57.7 | 125   | > 300 | > 300 | 1.3  | 57.7    | 177    | T7 + Apyrase + RNA Pol Active      |                       |                                    |                        |                       |
| 185    |           | 89.7                             | 12.6        | > 300                       | 10.7 | 101   | > 300 | > 300 | 9.8  | 51.7    | > 300  | T7 + Apyrase + RNA Pol Active      |                       | >512                               | >512                   |                       |
| 186    |           | > 300                            | 143         | > 300                       | 14.6 | > 300 | > 300 | > 300 | 3.2  | 15.0    | > 300  | T7 + Apyrase + RNA Pol Active      |                       |                                    |                        |                       |
| 187    |           | 27.8                             | 33.4        | 230                         | 53.4 | 27.2  | 200   | > 300 | 96.5 | 114     | > 300  | T7 + Apyrase + T4 + RNA Pol Active |                       | >512                               | 64                     | Nonspecific           |
| 188    |           | 36.8                             | 18.3        | > 300                       | 2.7  | 14.2  | > 300 | > 300 | 17.0 | 60.0    | > 300  | T7 + Apyrase + T4 + RNA Pol Active |                       |                                    |                        |                       |
| 189    |           | 41.0                             | > 300       | > 300                       | 9.1  | 86.1  | > 300 | 77.2  | 14.1 | > 300   | > 300  | T7 + Apyrase + T4+ Pol γ Active    |                       | >512                               | >512                   |                       |
| 190    |           | 24.7                             | 17.8        | > 300                       | 28.8 | 83.8  | 300   | 77.7  | 1.1  | > 300   | > 300  | T7 + Apyrase + T4+ Pol γ Active    |                       |                                    |                        |                       |
| 191    |           | 49.9                             | 133         | > 300                       | 133  | > 300 | 300   | > 300 | 12.9 | > 300   | > 300  | T7 + Apyrase Active                |                       | >512                               | >512                   |                       |
| 192    |           | < 0.5                            | 19.6        | > 300                       | 7.6  | 24.4  | > 300 | 112   | 2.0  | 193     | > 300  | T7 + Apyrase Active                |                       | >512                               | >512                   |                       |
| 193    |           | 17.6                             | 14.6        | > 300                       | 22.0 | > 300 | > 300 | 240   | 34.0 | > 300   | > 300  | T7 + Apyrase Active                |                       |                                    |                        |                       |
| 194    |           | 40.0                             | 32.6        | > 300                       | 118  | > 300 | > 300 | > 300 | 73.6 | > 300   | > 300  | T7 + Apyrase Active                |                       | >512                               | >512                   |                       |
| 195    |           | 23.8                             | 15.2        | 150                         | 69.4 | > 300 | > 300 | > 300 | 40.0 | > 300   | > 300  | T7 + Apyrase Active                |                       |                                    |                        |                       |

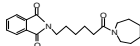
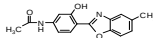
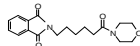
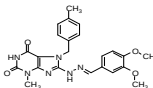
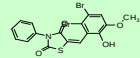
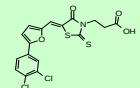
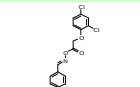
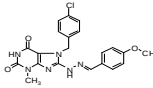
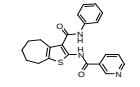
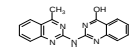
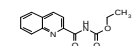
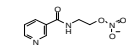
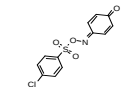
| Comp # | STRUCTURE                                                                           | DNA Pol III Holoenzyme IC50 (μM) |             | Specificity Assay IC50 (μM) |      |       |       |       |      |         |        | Biochemical Specificity |                       | Antimicrobial Activity MIC (μg/mL) |                        |                       |
|--------|-------------------------------------------------------------------------------------|----------------------------------|-------------|-----------------------------|------|-------|-------|-------|------|---------|--------|-------------------------|-----------------------|------------------------------------|------------------------|-----------------------|
|        |                                                                                     | <i>E. c</i>                      | <i>B. s</i> | DNA Binding                 | T7   | T4    | Pol δ | Pol γ | Apy  | RNA Pol | β -Gal | Enzyme Specificity      | Replicase Specificity | <i>E. c.</i> ATCC 25922            | <i>B. s.</i> ATCC 6633 | MMS Assay Specificity |
| 196    |    | 153                              | 25.8        | > 300                       | 60.3 | > 300 | > 300 | > 300 | 13.6 | > 300   | > 300  | T7 + Apyrase Active     |                       | >512                               | >512                   |                       |
| 197    |    | 50.5                             | 47.2        | > 300                       | 57.6 | > 300 | > 300 | > 300 | 16.9 | > 300   | > 300  | T7 + Apyrase Active     |                       |                                    |                        |                       |
| 198    |    | > 300                            | 30.9        | > 300                       | 56.7 | > 300 | > 300 | > 300 | 20.0 | > 300   | > 300  | T7 + Apyrase Active     |                       |                                    |                        |                       |
| 199    |    | 108                              | 25.1        | > 300                       | 45.0 | > 300 | > 300 | > 300 | 14.1 | > 300   | > 300  | T7 + Apyrase Active     |                       | >512                               | >512                   |                       |
| 200    |    | 19.4                             | 15.8        | > 300                       | 33.8 | 131   | 123   | > 300 | 5.3  | 300     | > 300  | T7 + Apyrase Active     |                       | >512                               | >512                   |                       |
| 201    |    | 90.4                             | 45.3        | > 300                       | 30.0 | > 300 | > 300 | > 300 | 70.7 | > 300   | > 300  | T7 + Apyrase Active     |                       |                                    |                        |                       |
| 202    |    | 38.1                             | 16.9        | > 300                       | 28.0 | 157   | > 300 | > 300 | 23.8 | > 300   | > 300  | T7 + Apyrase Active     |                       |                                    |                        |                       |
| 203    |   | 45.0                             | 18.2        | > 300                       | 24.2 | > 300 | > 300 | > 300 | 2.6  | > 300   | > 300  | T7 + Apyrase Active     |                       |                                    |                        |                       |
| 204    |  | 154                              | 17.4        | > 300                       | 21.8 | > 300 | > 300 | > 300 | 1.4  | > 300   | > 300  | T7 + Apyrase Active     |                       |                                    |                        |                       |
| 205    |  | 107                              | 23.4        | > 300                       | 20.7 | > 300 | > 300 | > 300 | 25.0 | > 300   | > 300  | T7 + Apyrase Active     |                       |                                    |                        |                       |
| 206    |  | > 300                            | 57.8        | > 300                       | 19.5 | > 300 | > 300 | > 300 | 1.5  | > 300   | > 300  | T7 + Apyrase Active     |                       | >512                               | >512                   |                       |
| 207    |  | 26.4                             | 47.8        | > 300                       | 18.2 | > 300 | 300   | > 300 | 17.7 | > 300   | > 300  | T7 + Apyrase Active     |                       |                                    |                        |                       |
| 208    |  | 18.0                             | 34.0        | > 300                       | 16.1 | > 300 | > 300 | > 300 | 0.7  | > 300   | > 300  | T7 + Apyrase Active     |                       |                                    |                        |                       |

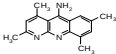
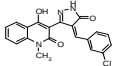
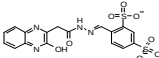
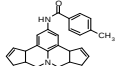
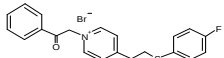
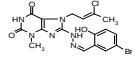
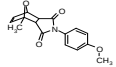
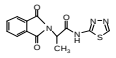
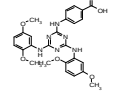
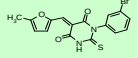
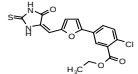
| Comp # | STRUCTURE                                                                           | DNA Pol III Holoenzyme IC50 (μM) |             | Specificity Assay IC50 (μM) |      |       |       |       |      |         |        | Biochemical Specificity |                       | Antimicrobial Activity MIC (μg/mL) |                        |                       |
|--------|-------------------------------------------------------------------------------------|----------------------------------|-------------|-----------------------------|------|-------|-------|-------|------|---------|--------|-------------------------|-----------------------|------------------------------------|------------------------|-----------------------|
|        |                                                                                     | <i>E. c</i>                      | <i>B. s</i> | DNA Binding                 | T7   | T4    | Pol δ | Pol γ | Apy  | RNA Pol | β -Gal | Enzyme Specificity      | Replicase Specificity | <i>E. c.</i> ATCC 25922            | <i>B. s.</i> ATCC 6633 | MMS Assay Specificity |
| 209    |    | > 300                            | 56.9        | > 300                       | 15.0 | > 300 | > 300 | > 300 | 120  | > 300   | > 300  | T7 + Apyrase Active     |                       |                                    |                        |                       |
| 210    |    | 91.8                             | 19.1        | > 300                       | 14.7 | > 300 | > 300 | > 300 | 4.8  | > 300   | > 300  | T7 + Apyrase Active     |                       |                                    |                        |                       |
| 211    |    | 43.0                             | 33.8        | > 300                       | 12.2 | > 300 | > 300 | > 300 | 57.3 | > 300   | > 300  | T7 + Apyrase Active     |                       |                                    |                        |                       |
| 212    |    | > 300                            | 40.1        | > 300                       | 11.6 | > 300 | > 300 | > 300 | 30.0 | > 300   | > 300  | T7 + Apyrase Active     |                       |                                    |                        |                       |
| 213    |    | 4.0                              | 6.1         | > 300                       | 11.1 | > 300 | > 300 | > 300 | 7.6  | > 300   | > 300  | T7 + Apyrase Active     |                       | >512                               | >512                   |                       |
| 214    |    | 45.8                             | 8.7         | > 300                       | 10.8 | > 300 | > 300 | > 300 | 4.5  | > 300   | > 300  | T7 + Apyrase Active     |                       | >512                               | >512                   |                       |
| 215    |    | 68.6                             | > 300       | > 300                       | 8.4  | > 300 | > 300 | > 300 | 13.7 | > 300   | > 300  | T7 + Apyrase Active     |                       |                                    |                        |                       |
| 216    |   | 37.2                             | 14.9        | > 300                       | 7.2  | > 300 | 300   | > 300 | 9.9  | > 300   | > 300  | T7 + Apyrase Active     |                       |                                    |                        |                       |
| 217    |  | 80.0                             | 6.4         | > 300                       | 7.2  | 145   | > 300 | > 300 | 1.7  | > 300   | > 300  | T7 + Apyrase Active     |                       | >512                               | >512                   |                       |
| 218    |  | 164                              | 7.0         | > 300                       | 7.1  | > 300 | > 300 | > 300 | 8.9  | > 300   | > 300  | T7 + Apyrase Active     |                       | >512                               | >512                   |                       |
| 219    |  | 1.4                              | 3.3         | > 300                       | 6.8  | 8.2   | 59.0  | > 300 | 0.9  | > 300   | > 300  | T7 + Apyrase Active     |                       |                                    |                        |                       |
| 220    |  | > 300                            | 5.3         | > 300                       | 6.1  | > 300 | 300   | > 300 | 1.6  | > 300   | > 300  | T7 + Apyrase Active     |                       |                                    |                        |                       |
| 221    |  | 300                              | 11.0        | > 300                       | 6.0  | 201   | 300   | > 300 | 6.2  | > 300   | > 300  | T7 + Apyrase Active     |                       |                                    |                        |                       |

| Comp # | STRUCTURE                                                                           | DNA Pol III Holoenzyme IC50 (μM) | Specificity Assay IC50 (μM) |             |      |       |       |       |      |         |        |                     | Biochemical Specificity |                         | Antimicrobial Activity MIC (μg/mL) |                       |  |
|--------|-------------------------------------------------------------------------------------|----------------------------------|-----------------------------|-------------|------|-------|-------|-------|------|---------|--------|---------------------|-------------------------|-------------------------|------------------------------------|-----------------------|--|
|        |                                                                                     | <i>E. c</i>                      | <i>B. s</i>                 | DNA Binding | T7   | T4    | Pol δ | Pol γ | Apy  | RNA Pol | β -Gal | Enzyme Specificity  | Replicase Specificity   | <i>E. c.</i> ATCC 25922 | <i>B. s.</i> ATCC 6633             | MMS Assay Specificity |  |
| 222    |    | 139                              | 5.7                         | > 300       | 5.9  | 99.7  | 34.2  | > 300 | 1.5  | > 300   | > 300  | T7 + Apyrase Active |                         | >512                    | >512                               |                       |  |
| 223    |    | > 300                            | 13.5                        | > 300       | 5.2  | > 300 | > 300 | > 300 | 0.6  | > 300   | > 300  | T7 + Apyrase Active |                         | >512                    | >512                               |                       |  |
| 224    |    | 20.3                             | 32.1                        | > 300       | 4.9  | > 300 | 200   | > 300 | 7.0  | > 300   | > 300  | T7 + Apyrase Active |                         |                         |                                    |                       |  |
| 225    |    | 74.0                             | 17.7                        | > 300       | 4.7  | > 300 | > 300 | > 300 | 8.3  | > 300   | > 300  | T7 + Apyrase Active |                         |                         |                                    |                       |  |
| 226    |    | 221                              | 21.1                        | > 300       | 2.3  | > 300 | 300   | > 300 | 49.9 | > 300   | > 300  | T7 + Apyrase Active |                         |                         |                                    |                       |  |
| 227    |    | 28.5                             | 2.8                         | > 300       | 2.3  | > 300 | 300   | > 300 | 3.6  | > 300   | > 300  | T7 + Apyrase Active |                         |                         |                                    |                       |  |
| 228    |    | > 300                            | 1.1                         | > 300       | 1.5  | > 300 | 300   | > 300 | 2.5  | > 300   | > 300  | T7 + Apyrase Active |                         |                         |                                    |                       |  |
| 229    |   | 130                              | 68.1                        | > 300       | 206  | > 300 | > 300 | > 300 | 101  | > 300   | > 300  | T7 + Apyrase Active |                         | 512                     | 256                                | Nonspecific           |  |
| 230    |  | 61.1                             | 64.2                        | > 300       | 151  | > 300 | 300   | > 300 | 151  | > 300   | > 300  | T7 + Apyrase Active |                         |                         |                                    |                       |  |
| 231    |  | 240                              | 70.1                        | > 300       | 130  | > 300 | > 300 | > 300 | 100  | > 300   | > 300  | T7 + Apyrase Active |                         |                         |                                    |                       |  |
| 232    |  | 71.5                             | 222                         | 156         | 117  | > 300 | 250   | > 300 | 22.5 | > 300   | > 300  | T7 + Apyrase Active |                         |                         |                                    |                       |  |
| 233    |  | 81.3                             | 108                         | 212         | 39.8 | 214   | 228   | > 300 | 28.9 | > 300   | > 300  | T7 + Apyrase Active |                         |                         |                                    |                       |  |
| 234    |  | 95.9                             | 133                         | > 300       | 36.7 | 182   | > 300 | > 300 | 37.3 | > 300   | > 300  | T7 + Apyrase Active |                         | >512                    | >512                               |                       |  |

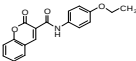
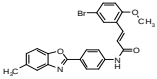
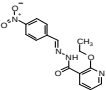
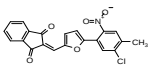
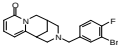
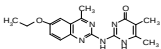
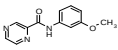
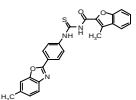
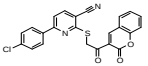
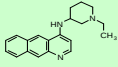
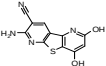
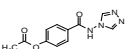
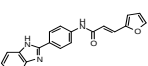
| Comp # | STRUCTURE                                                                           | DNA Pol III Holoenzyme IC50 (μM) |             | Specificity Assay IC50 (μM) |        |       |       |       |       |         |        | Biochemical Specificity                  |                       | Antimicrobial Activity MIC (μg/mL) |                        |                       |
|--------|-------------------------------------------------------------------------------------|----------------------------------|-------------|-----------------------------|--------|-------|-------|-------|-------|---------|--------|------------------------------------------|-----------------------|------------------------------------|------------------------|-----------------------|
|        |                                                                                     | <i>E. c</i>                      | <i>B. s</i> | DNA Binding                 | T7     | T4    | Pol δ | Pol γ | Apy   | RNA Pol | β -Gal | Enzyme Specificity                       | Replicase Specificity | <i>E. c.</i> ATCC 25922            | <i>B. s.</i> ATCC 6633 | MMS Assay Specificity |
| 235    |    | > 300                            | 74.2        | > 300                       | 26.3   | > 300 | > 300 | > 300 | 182   | > 300   | > 300  | T7 + Apyrase Active                      |                       |                                    |                        |                       |
| 236    |    | 70.8                             | 99.9        | 217                         | 67.3   | > 300 | 300   | > 300 | 144   | > 300   | > 300  | T7 + Apyrase Active                      |                       | >512                               | >512                   |                       |
| 237    |    | 27.5                             | 77.9        | > 300                       | > 75.0 | > 300 | > 300 | > 300 | 92.4  | > 300   | > 300  | T7 + Apyrase Active                      |                       |                                    |                        |                       |
| 238    |    | 18.5                             | 150         | > 300                       | 20.0   | 103   | 181   | > 300 | 39.1  | 106     | > 300  | T7 + Apyrase Active                      |                       | >512                               | >512                   |                       |
| 239    |    | 32.1                             | 19.9        | 156                         | 58.5   | 217   | 47.1  | 97.1  | 300   | > 300   | > 300  | T7 + Pol δ + Pol γ Active                |                       | >512                               | >512                   |                       |
| 240    |    | 110                              | 34.8        | > 300                       | 13.2   | 200   | 18.0  | 100   | > 300 | > 300   | > 300  | T7 + Pol δ + Pol γ Active                |                       |                                    |                        |                       |
| 241    |    | 63.0                             | 43.7        | > 300                       | 26.7   | > 300 | 47.6  | 145   | > 300 | > 300   | > 300  | T7 + Pol δ + Pol γ Active                |                       |                                    |                        |                       |
| 242    |   | 31.4                             | 27.7        | 122                         | 9.4    | 120   | 10.6  | 101   | > 300 | > 300   | > 300  | T7 + Pol δ + T4 + Pol γ                  |                       |                                    |                        |                       |
| 243    |  | 16.1                             | 28.3        | 78.7                        | 33.7   | 60.2  | 34.4  | 57.9  | > 300 | 194     | > 300  | T7 + Pol δ + T4 + Pol γ                  |                       |                                    |                        |                       |
| 244    |  | 41.2                             | 32.3        | > 300                       | 40.0   | 42.6  | 79.5  | 19.8  | > 300 | > 300   | > 300  | T7 + Pol δ + T4 + Pol γ                  |                       |                                    |                        |                       |
| 245    |  | 102                              | 26.3        | 380                         | 5.3    | 107   | 15.7  | 52.9  | > 300 | > 300   | > 300  | T7 + Pol δ + T4 + Pol γ                  |                       |                                    |                        |                       |
| 246    |  | 32.4                             | 44.2        | 162                         | 24.1   | 49.8  | 18.5  | 52.5  | > 300 | 28.7    | > 300  | T7 + Pol δ + T4 + Pol γ + RNA Pol Active |                       |                                    |                        |                       |
| 247    |  | 52.2                             | 145         | > 300                       | 48.1   | 101   | 101   | > 300 | > 300 | 180     | > 300  | T7 + Pol δ + T4 + RNA Pol Active         |                       |                                    |                        |                       |

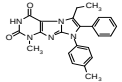
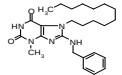
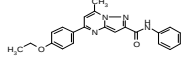
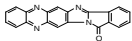
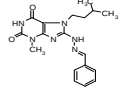
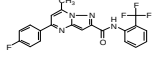
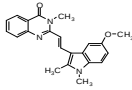
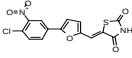
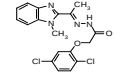
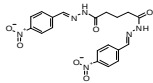
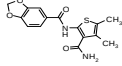
| Comp # | STRUCTURE                                                                           | DNA Pol III Holoenzyme IC50 (μM) | Specificity Assay IC50 (μM) |             |      |       |       |       |       |         |        |                                  | Biochemical Specificity |  | Antimicrobial Activity MIC (μg/mL) |                        |                       |
|--------|-------------------------------------------------------------------------------------|----------------------------------|-----------------------------|-------------|------|-------|-------|-------|-------|---------|--------|----------------------------------|-------------------------|--|------------------------------------|------------------------|-----------------------|
|        |                                                                                     | <i>E. c</i>                      | <i>B. s</i>                 | DNA Binding | T7   | T4    | Pol δ | Pol γ | Apy   | RNA Pol | β -Gal | Enzyme Specificity               | Replicase Specificity   |  | <i>E. c.</i> ATCC 25922            | <i>B. s.</i> ATCC 6633 | MMS Assay Specificity |
| 248    |    | 17.4                             | 67.2                        | 130         | 17.4 | 46.1  | 84.0  | 145   | > 300 | 80.0    | > 300  | T7 + Pol δ + T4 + RNA Pol Active |                         |  |                                    |                        |                       |
| 249    |    | 46.1                             | 85.4                        | > 300       | 31.0 | 24.0  | 200   | > 300 | > 300 | 120     | > 300  | T7 + Pol δ + T4 + RNA Pol Active |                         |  |                                    |                        |                       |
| 250    |    | 81.3                             | 351                         | > 600       | 172  | 400   | 340   | > 600 | 420   | > 600   | > 600  | T7 + Pol δ + T4 Active           |                         |  | 512                                | >512                   |                       |
| 251    |    | 59.0                             | 80.0                        | 300         | 34.0 | 77.4  | 25.5  | > 300 | > 300 | > 300   | > 300  | T7 + Pol δ + T4 Active           |                         |  |                                    |                        |                       |
| 252    |    | 127                              | 59.3                        | > 300       | 20.3 | 268   | 32.8  | > 300 | > 300 | > 300   | > 300  | T7 + Pol δ + T4 Active           |                         |  |                                    |                        |                       |
| 253    |    | 35.0                             | 18.8                        | > 300       | 13.2 | 28.9  | 16.3  | > 300 | > 300 | 140     | > 300  | T7 + Pol δ + T4 Active           |                         |  |                                    |                        |                       |
| 254    |    | 151                              | 55.3                        | > 300       | 7.3  | 180   | 60.4  | > 300 | > 300 | > 300   | > 300  | T7 + Pol δ + T4 Active           |                         |  |                                    |                        |                       |
| 255    |   | 107                              | 25.9                        | > 300       | 3.0  | 120   | 82.4  | > 300 | > 300 | > 300   | > 300  | T7 + Pol δ + T4 Active           |                         |  | >512                               | >512                   |                       |
| 256    |  | 17.8                             | 20.6                        | 45.0        | 35.2 | 19.1  | 13.0  | > 300 | > 300 | > 300   | > 300  | T7 + Pol δ + T4 Active           |                         |  |                                    |                        |                       |
| 257    |  | 2.2                              | 3.3                         | > 300       | 9.3  | 164   | 10.4  | 27.1  | 31.8  | 55.7    | > 300  | T7 + Pol δ Active                |                         |  | >512                               | >512                   |                       |
| 258    |  | 38.0                             | 8.8                         | 138         | 11.9 | 70.1  | 12.0  | 46.9  | > 300 | 120     | > 300  | T7 + Pol δ Active                |                         |  |                                    |                        |                       |
| 259    |  | 57.0                             | 46.0                        | 300         | 128  | 300   | 100   | > 300 | > 300 | > 300   | > 300  | T7 + Pol δ Active                |                         |  |                                    |                        |                       |
| 260    |  | 72.3                             | 90.9                        | > 300       | 60.2 | > 300 | 26.9  | > 300 | > 300 | > 300   | > 300  | T7 + Pol δ Active                |                         |  |                                    |                        |                       |

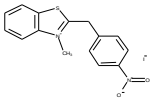
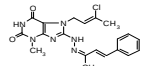
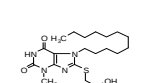
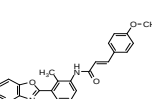
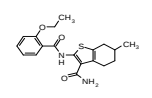
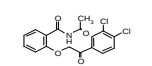
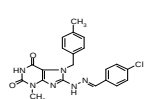
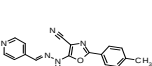
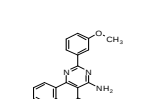
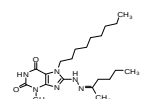
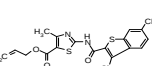
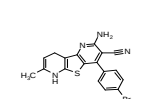
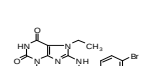
| Comp # | STRUCTURE                                                                           | DNA Pol III Holoenzyme IC50 (μM) |             | Specificity Assay IC50 (μM) |      |       |       |       |       |         |        | Biochemical Specificity |                       | Antimicrobial Activity MIC (μg/mL) |                        |                       |
|--------|-------------------------------------------------------------------------------------|----------------------------------|-------------|-----------------------------|------|-------|-------|-------|-------|---------|--------|-------------------------|-----------------------|------------------------------------|------------------------|-----------------------|
|        |                                                                                     | <i>E. c</i>                      | <i>B. s</i> | DNA Binding                 | T7   | T4    | Pol δ | Pol γ | Apy   | RNA Pol | β -Gal | Enzyme Specificity      | Replicase Specificity | <i>E. c.</i> ATCC 25922            | <i>B. s.</i> ATCC 6633 | MMS Assay Specificity |
| 261    |    | 64.1                             | 39.7        | > 300                       | 58.8 | > 300 | 38.7  | > 300 | 257   | > 300   | > 300  | T7 + Pol δ Active       |                       |                                    |                        |                       |
| 262    |    | 89.5                             | 24.3        | > 300                       | 52.8 | > 300 | 100   | > 300 | 275   | > 300   | > 300  | T7 + Pol δ Active       |                       |                                    |                        |                       |
| 263    |    | 11.2                             | 31.3        | 220                         | 36.8 | > 300 | 20.8  | 300   | > 300 | > 300   | > 300  | T7 + Pol δ Active       |                       |                                    |                        |                       |
| 264    |    | 76.1                             | 53.9        | > 300                       | 29.7 | > 300 | 71.1  | > 300 | > 300 | > 300   | > 300  | T7 + Pol δ Active       |                       |                                    |                        |                       |
| 265    |    | 16.3                             | 6.0         | 43.3                        | 17.8 | 59.7  | 22.1  | > 300 | > 300 | > 300   | > 300  | T7 + Pol δ Active       |                       | 64                                 | >512                   | Nonspecific           |
| 266    |    | 5.3                              | 3.7         | 58.5                        | 12.3 | 206   | 17.7  | > 300 | 300   | 95.4    | > 300  | T7 + Pol δ Active       |                       | >512                               | 2                      | Nonspecific           |
| 267    |    | 30.2                             | 2.7         | > 300                       | 12.2 | > 300 | 9.7   | > 300 | 300   | > 300   | > 300  | T7 + Pol δ Active       |                       |                                    |                        |                       |
| 268    |   | 91.2                             | 13.4        | > 300                       | 10.9 | > 300 | 35.4  | > 300 | > 300 | 300     | > 300  | T7 + Pol δ Active       |                       |                                    |                        |                       |
| 269    |  | 107                              | 87.2        | 274                         | 52.5 | 200   | 98.7  | > 300 | > 300 | > 300   | > 300  | T7 + Pol δ Active       |                       |                                    |                        |                       |
| 270    |  | 187                              | > 300       | > 300                       | 20.5 | 290   | 59.4  | > 300 | > 300 | > 300   | > 300  | T7 + Pol δ Active       |                       | >512                               | >512                   |                       |
| 271    |  | 62.1                             | 150         | > 300                       | 17.2 | > 300 | 79.4  | > 300 | > 300 | > 300   | > 300  | T7 + Pol δ Active       |                       |                                    |                        |                       |
| 272    |  | 6.1                              | 35.4        | 29.1                        | 8.4  | 242   | 21.3  | 35.4  | > 300 | > 300   | > 300  | T7 + Pol δ Active       |                       |                                    |                        |                       |
| 273    |  | 2.9                              | 7.3         | 19.2                        | 1.9  | 56.5  | 10.0  | 57.9  | 79.9  | 96.6    | > 300  | T7 + Pol δ Active       |                       | >512                               | >512                   |                       |

| Comp # | STRUCTURE                                                                           | DNA Pol III Holoenzyme IC50 (μM) |             | Specificity Assay IC50 (μM) |       |       |       |       |       |         |        | Biochemical Specificity          |                       | Antimicrobial Activity MIC (μg/mL) |                        |                       |
|--------|-------------------------------------------------------------------------------------|----------------------------------|-------------|-----------------------------|-------|-------|-------|-------|-------|---------|--------|----------------------------------|-----------------------|------------------------------------|------------------------|-----------------------|
|        |                                                                                     | <i>E. c</i>                      | <i>B. s</i> | DNA Binding                 | T7    | T4    | Pol δ | Pol γ | Apy   | RNA Pol | β -Gal | Enzyme Specificity               | Replicase Specificity | <i>E. c.</i> ATCC 25922            | <i>B. s.</i> ATCC 6633 | MMS Assay Specificity |
| 274    |    | 6.3                              | 11.7        | 34.9                        | 7.2   | > 300 | 27.1  | 85.7  | > 300 | 113     | > 300  | T7 + Pol δ Active                |                       | >512                               | 32                     | Nonspecific           |
| 275    |    | 22.1                             | 46.5        | 119                         | 24.7  | > 300 | 30.3  | 118   | > 300 | 250     | > 300  | T7 + Pol δ Active                |                       |                                    |                        |                       |
| 276    |    | 31.9                             | 23.7        | 118                         | 67.0  | > 300 | 70.7  | > 300 | > 300 | > 300   | > 300  | T7 + Pol δ Active                |                       |                                    |                        |                       |
| 277    |    | 23.8                             | 80.6        | 180                         | 101   | > 300 | 73.2  | > 300 | > 300 | > 300   | > 300  | T7 + Pol δ Active                |                       |                                    |                        |                       |
| 278    |    | 34.2                             | 72.9        | > 300                       | 30.3  | > 300 | 37.4  | > 300 | > 300 | > 300   | > 300  | T7 + Pol δ Active                |                       |                                    |                        |                       |
| 279    |    | 59.7                             | 87.0        | 177                         | 18.5  | > 300 | 194   | > 300 | 300   | > 300   | > 300  | T7 + Pol δ Active                |                       | 64                                 | 32                     | Nonspecific           |
| 280    |    | 53.5                             | > 300       | > 300                       | 4.6   | > 300 | 120   | > 300 | > 300 | > 300   | > 300  | T7 + Pol δ Active                |                       |                                    |                        |                       |
| 281    |   | > 300                            | 117         | > 300                       | 59.2  | > 300 | 108   | 258   | > 300 | > 300   | > 300  | T7 + Pol δ Active                |                       | 512                                | 512                    |                       |
| 282    |  | 23.4                             | 102         | 300                         | 85.1  | 249   | > 300 | > 300 | > 300 | 100     | > 300  | T7 + RNA Pol Active              |                       |                                    |                        |                       |
| 283    |  | 9.6                              | 28.3        | 48.7                        | < 0.5 | 23.0  | > 300 | 19.2  | 200   | 26.4    | > 300  | T7 + T4 + Pol γ + RNA Pol Active |                       |                                    |                        |                       |
| 284    |  | 48.1                             | 82.1        | > 300                       | 57.8  | 180   | > 300 | 171   | 270   | > 300   | > 300  | T7 + T4 + Pol γ Active           |                       |                                    |                        |                       |
| 285    |  | 45.9                             | 18.3        | 154                         | 85.1  | 70.5  | 100   | 52.1  | 123   | 203     | > 300  | T7 + T4 + Pol γ Active           |                       | >512                               | 256                    | DNA Replication       |
| 286    |  | 120                              | 52.4        | > 300                       | 16.2  | 250   | > 300 | > 300 | > 300 | 250     | > 300  | T7 + T4 + RNA Pol Active         |                       |                                    |                        |                       |

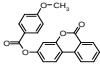
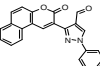
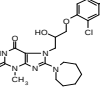
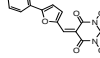
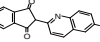
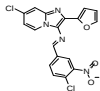
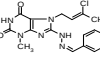
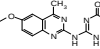
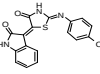
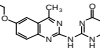
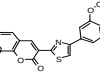
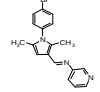
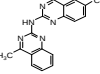
| Comp # | STRUCTURE | DNA Pol III Holoenzyme IC50 (μM) |             | Specificity Assay IC50 (μM) |      |      |       |       |       |         |        | Biochemical Specificity |                       | Antimicrobial Activity MIC (μg/mL) |                        |                       |
|--------|-----------|----------------------------------|-------------|-----------------------------|------|------|-------|-------|-------|---------|--------|-------------------------|-----------------------|------------------------------------|------------------------|-----------------------|
|        |           | <i>E. c</i>                      | <i>B. s</i> | DNA Binding                 | T7   | T4   | Pol δ | Pol γ | Apy   | RNA Pol | β -Gal | Enzyme Specificity      | Replicase Specificity | <i>E. c.</i> ATCC 25922            | <i>B. s.</i> ATCC 6633 | MMS Assay Specificity |
| 287    |           | 27.1                             | > 300       | > 300                       | 103  | 10.4 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 + T4 Active          |                       |                                    |                        |                       |
| 288    |           | 55.3                             | 96.0        | > 300                       | 15.9 | 237  | 300   | > 300 | > 300 | > 300   | > 300  | T7 + T4 Active          |                       | >512                               | >512                   |                       |
| 289    |           | 7.7                              | 128         | 20.3                        | 4.3  | 10.3 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 + T4 Active          |                       |                                    |                        |                       |
| 290    |           | 38.4                             | 24.6        | > 300                       | 89.2 | 40.8 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 + T4 Active          |                       |                                    |                        |                       |
| 291    |           | 27.0                             | 27.0        | 222                         | 35.8 | 108  | 173   | > 300 | > 300 | > 300   | > 300  | T7 + T4 Active          |                       |                                    |                        |                       |
| 292    |           | 14.4                             | 16.0        | 96.0                        | 35.4 | 51.9 | 122   | > 300 | 300   | 77.8    | > 300  | T7 + T4 Active          |                       | >512                               | >512                   |                       |
| 293    |           | 51.2                             | 34.7        | > 300                       | 27.9 | 92.2 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 + T4 Active          |                       |                                    |                        |                       |
| 294    |           | 66.5                             | 5.7         | > 300                       | 11.6 | 9.9  | > 300 | > 300 | > 300 | > 300   | > 300  | T7 + T4 Active          |                       |                                    |                        |                       |
| 295    |           | 215                              | 44.4        | > 300                       | 7.7  | 68.6 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 + T4 Active          |                       |                                    |                        |                       |
| 296    |           | 220                              | 25.1        | > 300                       | 6.2  | 77.1 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 + T4 Active          |                       |                                    |                        |                       |
| 297    |           | 25.0                             | 53.9        | > 300                       | 5.2  | 23.8 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 + T4 Active          |                       |                                    |                        |                       |
| 298    |           | 57.6                             | 13.2        | 230                         | 3.8  | 40.7 | > 300 | > 300 | 70.0  | > 300   | > 300  | T7 + T4 Active          |                       |                                    |                        |                       |
| 299    |           | 120                              | 85.4        | > 300                       | 3.8  | 43.6 | > 300 | > 300 | > 300 | 300     | > 300  | T7 + T4 Active          |                       | >512                               | >512                   |                       |

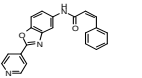
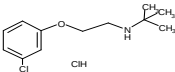
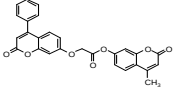
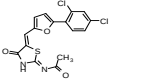
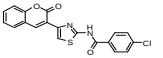
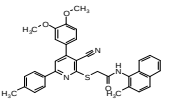
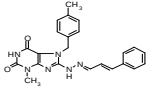
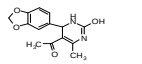
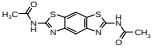
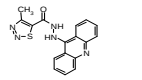
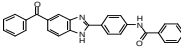
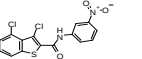
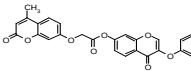
| Comp # | STRUCTURE                                                                           | DNA Pol III Holoenzyme IC50 (μM) |             | Specificity Assay IC50 (μM) |      |       |       |       |       |         |        | Biochemical Specificity |                       | Antimicrobial Activity MIC (μg/mL) |                        |                       |
|--------|-------------------------------------------------------------------------------------|----------------------------------|-------------|-----------------------------|------|-------|-------|-------|-------|---------|--------|-------------------------|-----------------------|------------------------------------|------------------------|-----------------------|
|        |                                                                                     | <i>E. c</i>                      | <i>B. s</i> | DNA Binding                 | T7   | T4    | Pol δ | Pol γ | Apy   | RNA Pol | β -Gal | Enzyme Specificity      | Replicase Specificity | <i>E. c.</i> ATCC 25922            | <i>B. s.</i> ATCC 6633 | MMS Assay Specificity |
| 300    |    | 126                              | 44.2        | 120                         | 42.4 | > 300 | > 300 | > 300 | 300   | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 301    |    | 64.9                             | > 300       | > 300                       | 63.6 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 302    |    | 116                              | 60.2        | > 300                       | 50.8 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 303    |    | 69.8                             | 96.6        | > 300                       | 37.6 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 304    |    | 268                              | 79.0        | > 300                       | 32.9 | > 300 | > 300 | > 300 | 300   | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 305    |    | > 300                            | > 300       | > 300                       | 25.7 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 306    |    | > 300                            | 81.9        | > 300                       | 18.5 | > 300 | 254   | > 300 | 300   | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 307    |   | > 300                            | 105         | > 300                       | 9.0  | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 308    |  | > 300                            | 79.9        | > 300                       | 7.9  | 171   | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 309    |  | 4.6                              | 10.0        | 103                         | 13.4 | > 300 | 63.2  | 64.0  | 300   | 56.5    | > 300  | T7 Pol Active           |                       | 16                                 | 16                     | DNA Replication       |
| 310    |  | 2.9                              | 9.4         | 95.1                        | 6.6  | 151   | 17.4  | 76.6  | > 300 | 220     | 300    | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 311    |  | 1.5                              | 3.7         | 142                         | 5.6  | 29.8  | 63.5  | 90.0  | > 300 | > 300   | > 300  | T7 Pol Active           |                       | 512                                | >512                   |                       |
| 312    |  | 15.9                             | 5.2         | > 300                       | 11.1 | 154   | 36.7  | 139   | 28    | 217     | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |

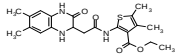
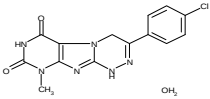
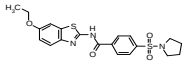
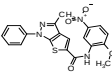
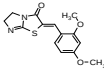
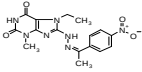
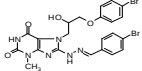
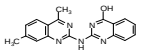
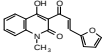
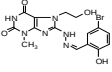
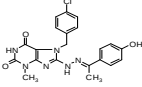
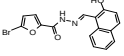
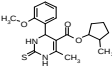
| Comp # | STRUCTURE                                                                           | DNA Pol III Holoenzyme IC50 (μM) |             | Specificity Assay IC50 (μM) |      |       |       |       |       |         |        | Biochemical Specificity |                       | Antimicrobial Activity MIC (μg/mL) |                        |                       |
|--------|-------------------------------------------------------------------------------------|----------------------------------|-------------|-----------------------------|------|-------|-------|-------|-------|---------|--------|-------------------------|-----------------------|------------------------------------|------------------------|-----------------------|
|        |                                                                                     | <i>E. c</i>                      | <i>B. s</i> | DNA Binding                 | T7   | T4    | Pol δ | Pol γ | Apy   | RNA Pol | β -Gal | Enzyme Specificity      | Replicase Specificity | <i>E. c.</i> ATCC 25922            | <i>B. s.</i> ATCC 6633 | MMS Assay Specificity |
| 313    |    | 49.3                             | 5.5         | > 300                       | 2.6  | 104   | 41.4  | 154   | 300   | 245     | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 314    |    | 16.0                             | 29.2        | 169                         | 75.2 | 184   | 107   | 231   | > 300 | > 300   | > 300  | T7 Pol Active           |                       | 512                                | 512                    |                       |
| 315    |    | 105                              | 39.8        | > 300                       | 82.9 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 316    |    | > 300                            | 20.0        | > 300                       | 79.9 | > 300 | 300   | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 317    |    | 89.5                             | 42.4        | > 300                       | 60.0 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 318    |    | 101                              | 18.5        | > 300                       | 52.6 | > 300 | 265   | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 319    |    | 216                              | 54.5        | > 300                       | 50.8 | > 300 | 300   | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 320    |   | 108                              | 48.3        | > 300                       | 50.0 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 321    |  | > 300                            | 32.1        | > 300                       | 48.9 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 322    |  | 20.5                             | 15.9        | > 300                       | 46.4 | 180   | 237   | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 323    |  | 60.0                             | 60.0        | > 300                       | 43.9 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 324    |  | 53.6                             | 37.0        | > 300                       | 36.7 | > 300 | 200   | > 300 | 200   | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 325    |  | 86.9                             | 53.7        | > 300                       | 36.2 | > 300 | 300   | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |

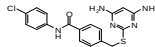
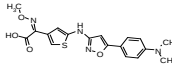
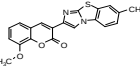
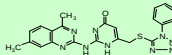
| Comp # | STRUCTURE                                                                           | DNA Pol III Holoenzyme IC50 (μM) |             | Specificity Assay IC50 (μM) |      |       |       |       |       |         |        | Biochemical Specificity |                       | Antimicrobial Activity MIC (μg/mL) |                        |                       |
|--------|-------------------------------------------------------------------------------------|----------------------------------|-------------|-----------------------------|------|-------|-------|-------|-------|---------|--------|-------------------------|-----------------------|------------------------------------|------------------------|-----------------------|
|        |                                                                                     | <i>E. c</i>                      | <i>B. s</i> | DNA Binding                 | T7   | T4    | Pol δ | Pol γ | Apy   | RNA Pol | β -Gal | Enzyme Specificity      | Replicase Specificity | <i>E. c.</i> ATCC 25922            | <i>B. s.</i> ATCC 6633 | MMS Assay Specificity |
| 326    |    | > 300                            | 11.0        | > 300                       | 33.8 | 158   | 300   | > 300 | 300   | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 327    |    | 67.0                             | 22.6        | > 300                       | 33.5 | > 300 | 300   | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 328    |    | 151                              | 11.2        | > 300                       | 28.8 | > 300 | 300   | > 300 | 68.0  | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 329    |    | 112                              | 7.1         | > 300                       | 26.8 | > 300 | > 300 | > 300 | 117   | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 330    |    | > 300                            | 15.6        | > 300                       | 26.5 | > 300 | > 300 | > 300 | 128   | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 331    |    | 7.2                              | 8.8         | 111                         | 26.2 | > 300 | > 300 | > 300 | 300   | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 332    |    | 66.6                             | 49.1        | > 300                       | 25.9 | > 300 | 300   | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 333    |   | 97.9                             | 39.7        | > 300                       | 23.8 | 205   | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 334    |  | > 300                            | 16.5        | > 300                       | 23.8 | > 300 | > 300 | > 300 | 229   | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 335    |  | 85.4                             | 6.3         | > 300                       | 21.2 | > 300 | 300   | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 336    |  | 83.4                             | 7.3         | > 300                       | 21.0 | > 300 | > 300 | > 300 | 161   | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 337    |  | 37.7                             | 33.6        | > 300                       | 19.8 | > 300 | 300   | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 338    |  | > 300                            | 37.6        | > 300                       | 19.5 | > 300 | 300   | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |

| Comp # | STRUCTURE | DNA Pol III<br>Holoenzyme IC50<br>( $\mu$ M) | Specificity Assay IC50 ( $\mu$ M) |                |      |       |              |              |       |            |              | Biochemical Specificity |                          | Antimicrobial Activity<br>MIC ( $\mu$ g/mL) |                              |                             |
|--------|-----------|----------------------------------------------|-----------------------------------|----------------|------|-------|--------------|--------------|-------|------------|--------------|-------------------------|--------------------------|---------------------------------------------|------------------------------|-----------------------------|
|        |           | <i>E. c</i>                                  | <i>B. s</i>                       | DNA<br>Binding | T7   | T4    | Pol $\delta$ | Pol $\gamma$ | Apy   | RNA<br>Pol | $\beta$ -Gal | Enzyme<br>Specificity   | Replicase<br>Specificity | <i>E. c.</i><br>ATCC<br>25922               | <i>B. s.</i><br>ATCC<br>6633 | MMS<br>Assay<br>Specificity |
| 339    |           | > 300                                        | 17.1                              | > 300          | 19.4 | > 300 | 167          | > 300        | > 300 | > 300      | > 300        | T7 Pol Active           |                          |                                             |                              |                             |
| 340    |           | 6.6                                          | 6.1                               | 134            | 19.1 | > 300 | > 300        | > 300        | > 300 | > 300      | > 300        | T7 Pol Active           |                          |                                             |                              |                             |
| 341    |           | 161                                          | 10.4                              | > 300          | 18.9 | > 300 | 164          | > 300        | 300   | > 300      | > 300        | T7 Pol Active           |                          | >512                                        | >512                         |                             |
| 342    |           | 121                                          | 21.7                              | > 300          | 18.7 | > 300 | > 300        | > 300        | > 300 | > 300      | > 300        | T7 Pol Active           |                          | >512                                        | >512                         |                             |
| 343    |           | 48.9                                         | 10.5                              | > 300          | 17.9 | 54.1  | > 300        | > 300        | > 300 | > 300      | > 300        | T7 Pol Active           |                          |                                             |                              |                             |
| 344    |           | 12.7                                         | 6.5                               | > 300          | 17.6 | 75.4  | > 300        | > 300        | > 300 | > 300      | > 300        | T7 Pol Active           |                          |                                             |                              |                             |
| 345    |           | 8.6                                          | 16.3                              | > 300          | 17.2 | 113   | 151          | > 300        | 300   | 113        | > 300        | T7 Pol Active           |                          | 128                                         | 16                           | DNA<br>Replication          |
| 346    |           | 35.6                                         | 31.0                              | > 300          | 17.0 | > 300 | 300          | > 300        | > 300 | > 300      | > 300        | T7 Pol Active           |                          |                                             |                              |                             |
| 347    |           | 14.2                                         | 29.9                              | > 300          | 16.8 | 142   | > 300        | > 300        | 300   | 242        | > 300        | T7 Pol Active           |                          | >512                                        | 16                           | Nonspecific                 |
| 348    |           | > 300                                        | 17.5                              | > 300          | 16.2 | > 300 | > 300        | > 300        | > 300 | > 300      | > 300        | T7 Pol Active           |                          |                                             |                              |                             |
| 349    |           | 36.9                                         | 29.3                              | > 300          | 15.7 | > 300 | 150          | > 300        | > 300 | > 300      | > 300        | T7 Pol Active           |                          |                                             |                              |                             |
| 350    |           | 50.2                                         | 3.3                               | > 300          | 15.4 | 74.4  | > 300        | > 300        | 103   | > 300      | > 300        | T7 Pol Active           |                          | >512                                        | >512                         |                             |
| 351    |           | 134                                          | 7.8                               | > 300          | 15.1 | > 300 | 300          | > 300        | > 300 | > 300      | > 300        | T7 Pol Active           |                          |                                             |                              |                             |

| Comp # | STRUCTURE                                                                           | DNA Pol III Holoenzyme IC50 (μM) |             | Specificity Assay IC50 (μM) |      |       |       |       |       |         |        | Biochemical Specificity |                       | Antimicrobial Activity MIC (μg/mL) |                        |                       |
|--------|-------------------------------------------------------------------------------------|----------------------------------|-------------|-----------------------------|------|-------|-------|-------|-------|---------|--------|-------------------------|-----------------------|------------------------------------|------------------------|-----------------------|
|        |                                                                                     | <i>E. c</i>                      | <i>B. s</i> | DNA Binding                 | T7   | T4    | Pol δ | Pol γ | Apy   | RNA Pol | β -Gal | Enzyme Specificity      | Replicase Specificity | <i>E. c.</i> ATCC 25922            | <i>B. s.</i> ATCC 6633 | MMS Assay Specificity |
| 352    |    | 309                              | 5.6         | > 300                       | 14.5 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 353    |    | 85.8                             | 6.9         | > 300                       | 14.4 | 169   | 331   | > 300 | 67.3  | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 354    |    | > 300                            | 11.0        | > 300                       | 13.6 | > 300 | 300   | > 300 | 300   | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 355    |    | > 300                            | 54.5        | > 300                       | 13.5 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 356    |    | > 300                            | 7.8         | > 300                       | 13.1 | > 300 | > 300 | > 300 | 300   | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 357    |    | 22.5                             | 11.1        | > 300                       | 13.1 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 358    |    | 33.4                             | 6.6         | > 300                       | 13.0 | > 300 | 300   | > 300 | 92.2  | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 359    |   | > 300                            | 14.9        | > 300                       | 12.6 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 360    |  | 7.6                              | 4.2         | 45.0                        | 12.3 | 135   | 41.2  | > 300 | 51.0  | 55.2    | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 361    |  | > 300                            | 2.8         | > 300                       | 11.3 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 362    |  | 223                              | 21.5        | > 300                       | 10.8 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 363    |  | 50.2                             | 18.0        | > 300                       | 10.7 | 104   | 192   | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 364    |  | > 300                            | 6.8         | > 300                       | 10.1 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |

| Comp # | STRUCTURE                                                                           | DNA Pol III Holoenzyme IC50 (μM) |             | Specificity Assay IC50 (μM) |     |       |       |       |       |         |        | Biochemical Specificity |                       | Antimicrobial Activity MIC (μg/mL) |                        |                       |
|--------|-------------------------------------------------------------------------------------|----------------------------------|-------------|-----------------------------|-----|-------|-------|-------|-------|---------|--------|-------------------------|-----------------------|------------------------------------|------------------------|-----------------------|
|        |                                                                                     | <i>E. c</i>                      | <i>B. s</i> | DNA Binding                 | T7  | T4    | Pol δ | Pol γ | Apy   | RNA Pol | β -Gal | Enzyme Specificity      | Replicase Specificity | <i>E. c.</i> ATCC 25922            | <i>B. s.</i> ATCC 6633 | MMS Assay Specificity |
| 365    |    | 7.7                              | 10.6        | > 300                       | 8.8 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 366    |    | 11.1                             | 7.3         | > 300                       | 7.6 | > 300 | > 300 | > 300 | 40.0  | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 367    |    | 90.2                             | 10.0        | > 300                       | 7.6 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 368    |    | 102                              | 22.5        | > 300                       | 7.5 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 369    |    | 43.2                             | 5.9         | > 300                       | 7.3 | 287   | > 300 | > 300 | 37.4  | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 370    |    | 134                              | 9.1         | > 300                       | 7.3 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 371    |    | 57.8                             | 2.3         | > 300                       | 6.0 | 82.0  | 27.2  | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 372    |   | 2.7                              | 21.6        | > 300                       | 5.9 | 131   | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 373    |  | 46.5                             | 12.9        | > 300                       | 5.7 | > 300 | 99.5  | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 374    |  | 6.4                              | 6.7         | 60.0                        | 5.5 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 375    |  | 39.0                             | 5.1         | > 300                       | 5.4 | 196   | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 376    |  | 121                              | 5.3         | > 300                       | 4.7 | > 300 | 119   | > 300 | 56.3  | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 377    |  | > 300                            | 41.4        | > 300                       | 4.6 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |

| Comp # | STRUCTURE                                                                           | DNA Pol III Holoenzyme IC50 (μM) |             | Specificity Assay IC50 (μM) |      |       |       |       |       |         |        | Biochemical Specificity |                       | Antimicrobial Activity MIC (μg/mL) |                        |                       |
|--------|-------------------------------------------------------------------------------------|----------------------------------|-------------|-----------------------------|------|-------|-------|-------|-------|---------|--------|-------------------------|-----------------------|------------------------------------|------------------------|-----------------------|
|        |                                                                                     | <i>E. c</i>                      | <i>B. s</i> | DNA Binding                 | T7   | T4    | Pol δ | Pol γ | Apy   | RNA Pol | β -Gal | Enzyme Specificity      | Replicase Specificity | <i>E. c.</i> ATCC 25922            | <i>B. s.</i> ATCC 6633 | MMS Assay Specificity |
| 378    |    | > 300                            | 5.4         | > 300                       | 4.6  | > 300 | > 300 | > 300 | 300   | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 379    |    | 10.2                             | 4.1         | > 300                       | 4.6  | > 300 | 300   | > 300 | 148   | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 380    |    | 97.8                             | 11.3        | > 300                       | 4.5  | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 381    |    | 50.3                             | 13.0        | > 300                       | 4.5  | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 382    |    | 33.1                             | 5.1         | 34.5                        | 3.9  | 124   | 36.8  | > 300 | > 300 | > 300   | 300    | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 383    |    | 8.8                              | 9.0         | > 300                       | 2.6  | > 300 | 300   | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 384    |    | 17.9                             | 2.8         | > 300                       | 1.3  | > 300 | 300   | > 300 | 20.7  | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 385    |   | 400                              | 3.3         | > 600                       | 11.4 | > 600 | 98.2  | > 600 | > 600 | > 600   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 386    |  | 24.2                             | 300         | > 300                       | 31.1 | 128   | 144   | 245   | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 387    |  | 54.2                             | 71.3        | > 300                       | 77.6 | > 300 | 300   | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 388    |  | 28.7                             | > 300       | > 300                       | 40.0 | 163   | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 389    |  | 17.2                             | > 300       | > 300                       | 33.6 | 218   | > 300 | > 300 | 229   | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 390    |  | 28.6                             | > 300       | > 300                       | 28.6 | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |

| Comp # | STRUCTURE                                                                         | DNA Pol III Holoenzyme IC50 (μM) |             | Specificity Assay IC50 (μM) |      |       |       |       |       |         |        | Biochemical Specificity |                       | Antimicrobial Activity MIC (μg/mL) |                        |                       |
|--------|-----------------------------------------------------------------------------------|----------------------------------|-------------|-----------------------------|------|-------|-------|-------|-------|---------|--------|-------------------------|-----------------------|------------------------------------|------------------------|-----------------------|
|        |                                                                                   | <i>E. c</i>                      | <i>B. s</i> | DNA Binding                 | T7   | T4    | Pol δ | Pol γ | Apy   | RNA Pol | β -Gal | Enzyme Specificity      | Replicase Specificity | <i>E. c.</i> ATCC 25922            | <i>B. s.</i> ATCC 6633 | MMS Assay Specificity |
| 391    |  | 51.2                             | 150         | > 300                       | 19.3 | > 300 | > 300 | > 300 | 290   | > 300   | > 300  | T7 Pol Active           |                       |                                    |                        |                       |
| 392    |  | 22.2                             | 109         | > 300                       | 9.1  | 300   | > 300 | > 300 | 300   | 300     | 150    | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 393    |  | 35.6                             | > 300       | > 300                       | 8.0  | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 394    |  | 23.0                             | 75.0        | > 300                       | 6.6  | > 300 | > 300 | > 300 | > 300 | > 300   | > 300  | T7 Pol Active           |                       | >512                               | >512                   |                       |
| 395    |  | 36.9                             | 2.8         | > 600                       | 12.6 | > 600 | > 600 | > 600 | > 600 | > 600   | > 600  | T7 Pol Active           |                       |                                    |                        |                       |