

Supporting Information

Exploring heterocycle-spermine conjugates as modulators of oncogenic microRNAs biogenesis

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RNA sequences for Dicer-mediated processing inhibition studies and binding affinity evaluation

pre-miR-372:

5'-GUGGGCCUCAA AUGUGGAGCACUAUUCUGAUGUCCAAGUGGAAAGUGCUGCGACA UUUGAGCGUCAC-3'

pre-miR-373:

5'-GGGAUACUCAA AUGGGGGCGCUUCCUUUUUGUCUGUACUGGGAAGUGCUUCGAUUUUGGGGUGUCCC-3'

pre-miR-17:

5'-GUCAGAAUAAUGUCAAGUGCUUACAGUGCAGGUAGUGAU AUGUGCAUCUACUGCAGUGAAGGCACUUGUAGCAUUAUGGUGAC-3'

pre-miR-21:

5'-UGUCGGGUAGCUUAUCAGACUGAUGUUGACUGUUGAAUCUCAUGGCAACACCAGUCGAUGGGCUGUCUGACA-3'

pre-miR-155:

5'-CUGUUA AUGCUAAUCGUGAUAGGGGUUUUUGCCUCCAACUGACUCCUACAUAUUAGCAUUAACAG-3'

Figure S1. Inhibition curves of compounds **PA-1** to **PA-5** (concentrations from 15 nM to 31.2 μ M) in the presence of pre-miR-372 and recombinant Dicer enzyme.

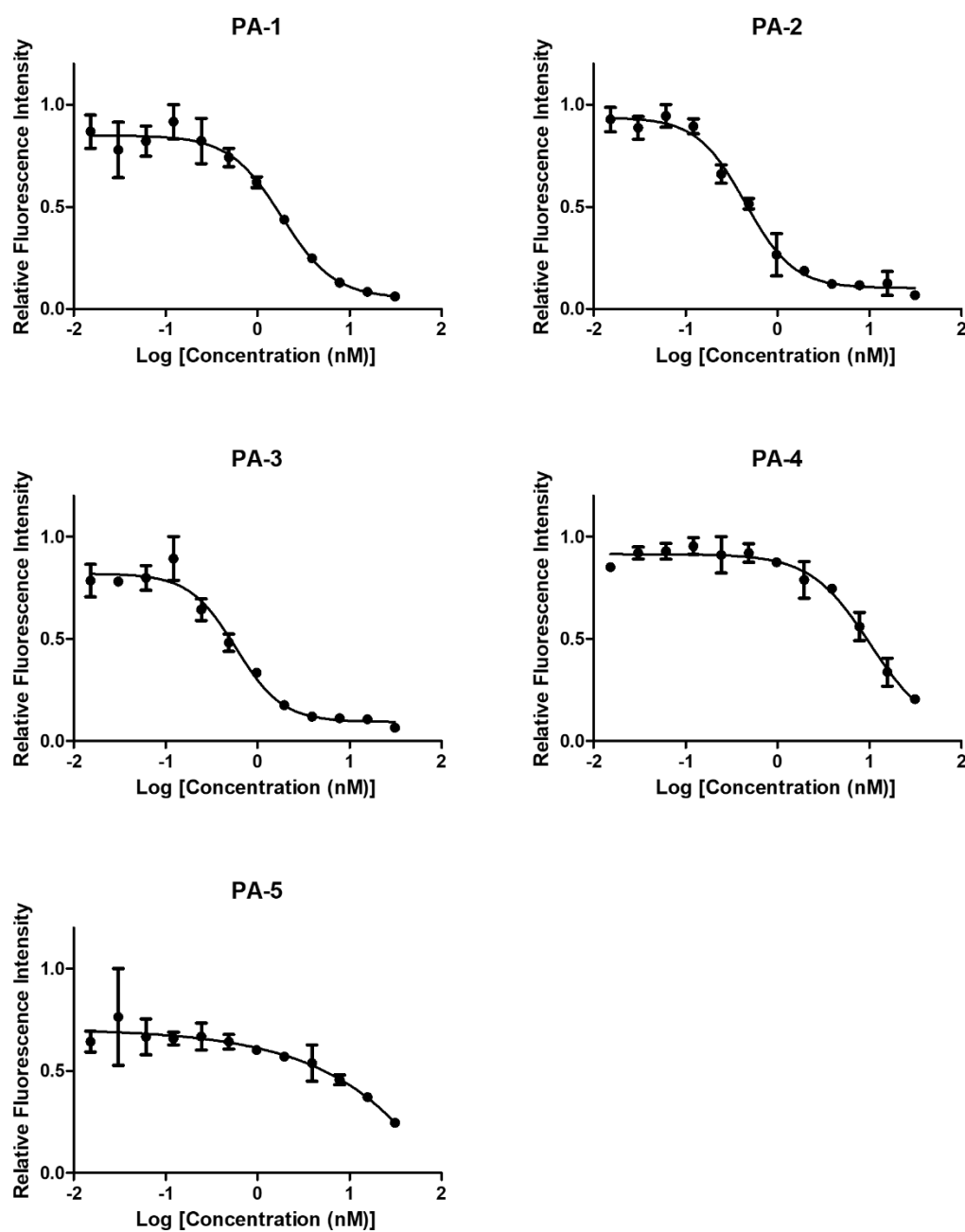


Figure S2. Binding curves of compounds **PA-1** to **PA-5** (concentrations from 0.61 nM to 10 μ M) in the presence of pre-miR-372.

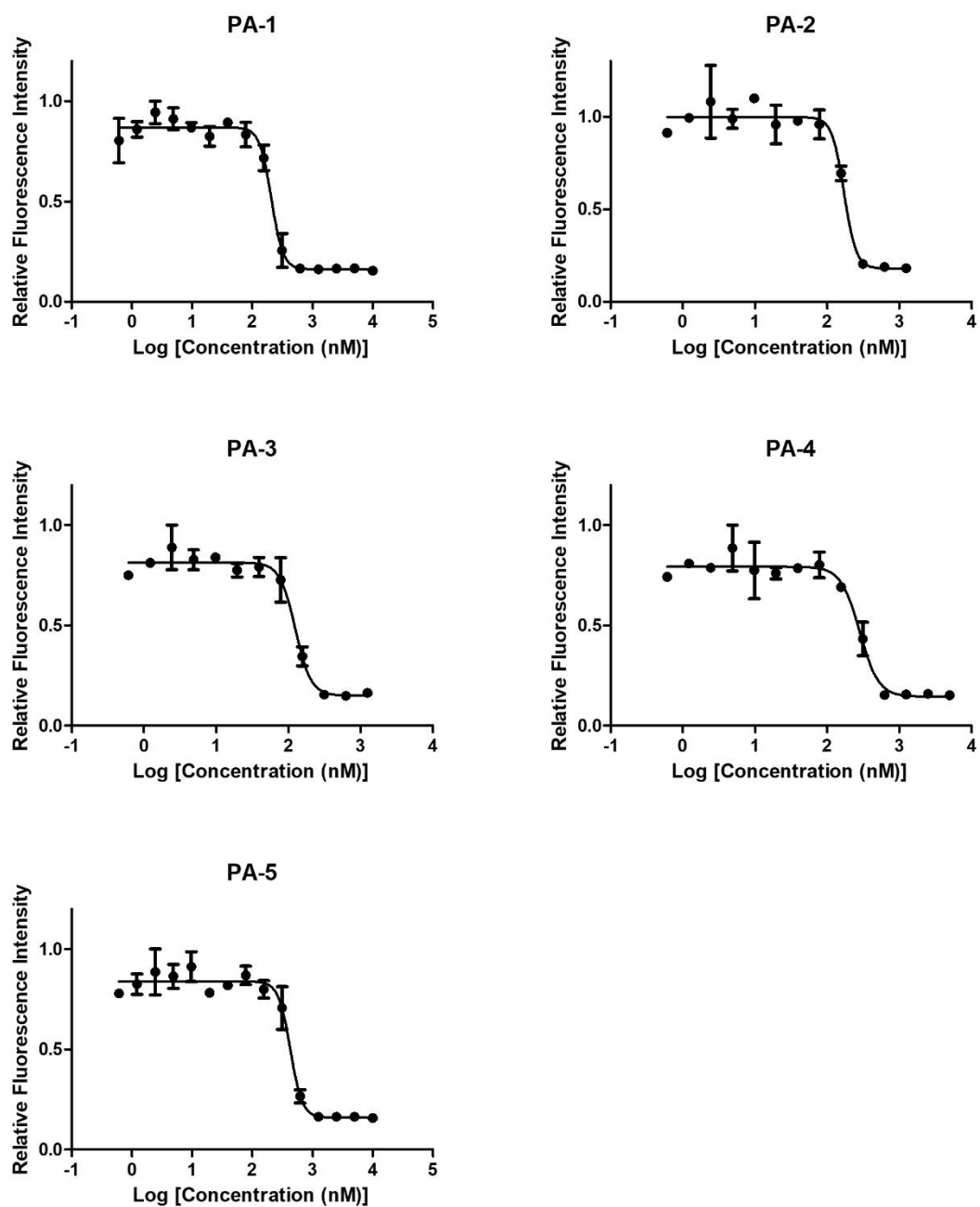


Figure S3. Molecular docking of **PA-3** interaction with pre-miR-372 hairpin loop performed using autodock 4 where the grid boxes were fixed on the entire RNA sequence. A) reproduction of Figure 4 without the hydrogen bonding donor-acceptor surfaces and B) different point of view of the interaction in order to better see the entire structure of **PA-3**.

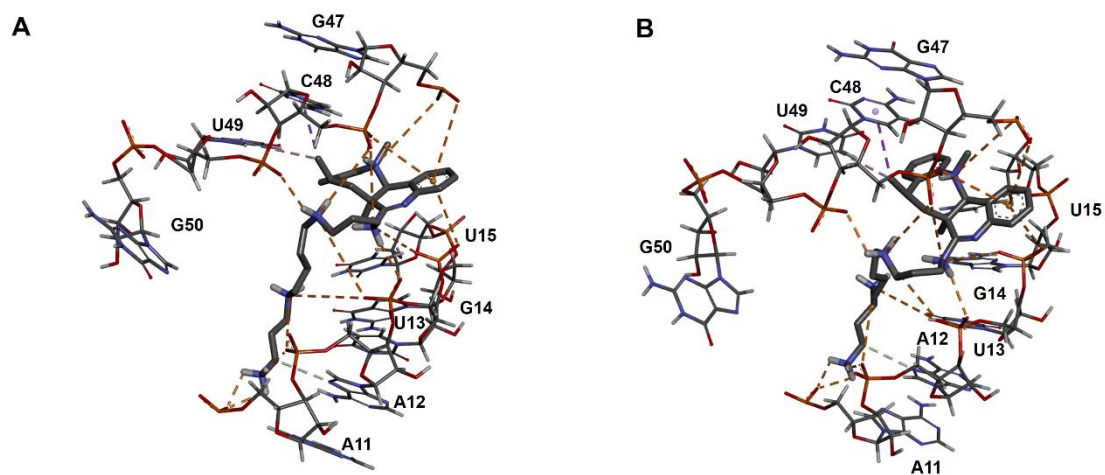


Figure S4. Molecular docking of **PA-5** interaction with pre-miR-372 hairpin loop performed using autodock 4 where the grid boxes were fixed on the entire RNA sequence.

