## **Supporting Information**

## **Chemical-Biological Fingerprinting:**

## **Probing the Properties of DNA Lesions Formed by Peroxynitrite**

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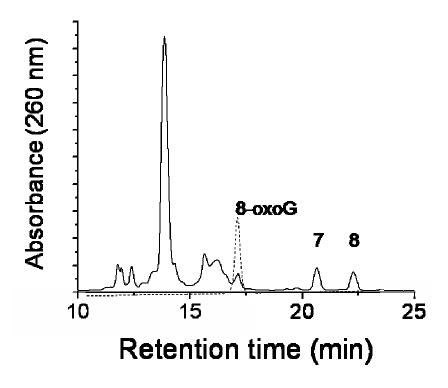
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**Supporting Information Figure 1.** HPLC chromatogram following reaction of 8-oxoGua oligonucleotide with 33.3-fold excess of SIN-1.

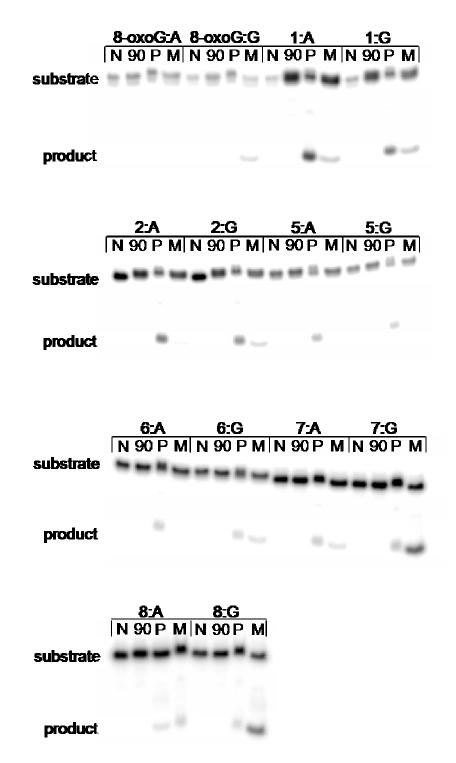
**Supporting Information Figure 2.** PAGE after piperidine or MutM treatment of **1-8** paired with A or G.

**Supporting Information Figure 3.** PAGE after piperidine or MutM treatment of **1-8** paired with C or T.

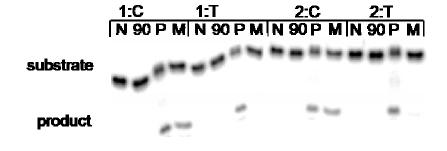
**Supporting Information Figure 4.** Outline of REAP and CRAB assays for determination of lesion mutagenicity and replication efficiency, respectively.

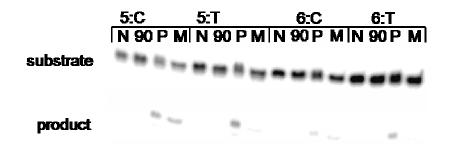


**Supporting Information Figure 1.** HPLC chromatogram after 5 h at 37 °C for reaction of 8-oxoG-oligonucleotide (75  $\mu$ M) with SIN-1 (2.5 mM) in 10 mM sodium phosphate, pH 7.5, 10 mM NaCl, and 25 mM NaHCO<sub>3</sub>.



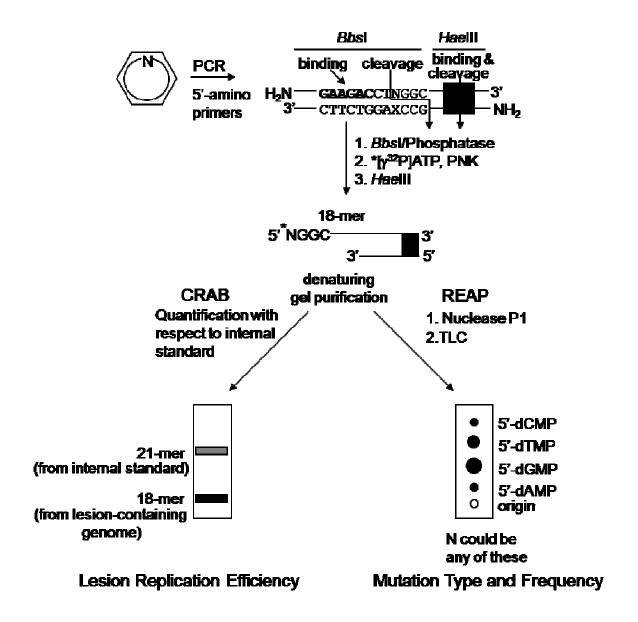
**Supporting Information Figure 2.** Denaturing PAGE following no treatment of lesion-containing oligonucleotide (N), for 30 min at 90 °C (90), piperidine treatment (P), or treatment with the MutM repair enzyme (M) when the lesion is paired with A or G.







**Supporting Information Figure 3.** Denaturing PAGE following no treatment of lesion-containing oligonucleotide (N), for 30 min at 90 °C (90), piperidine treatment (P), or treatment with the MutM repair enzyme (M) when the lesion is paired with C or T.



**Supporting Information Figure 4.** Outline of CRAB (lesion replication efficiency) and REAP (lesion mutagenesis) assays.