## **Supporting Information**

## Nuclear oxidation of a major peroxidation DNA adduct, M<sub>1</sub>dG, in the Genome

Orrette R. Wauchope<sup>#</sup>, William N. Beavers<sup>#</sup>, James J. Galligan<sup>#</sup>, Michelle M. Mitchener<sup>#</sup>, Philip J. Kingsley<sup>#</sup>, and Lawrence J. Marnett<sup>\*#<sup>#</sup></sup>

A. B. Hancock, Jr., Memorial Laboratory for Cancer Research, Departments of <sup>\$\$</sup>Biochemistry, <sup>#</sup>Chemistry, and <sup>§</sup>Pharmacology, Vanderbilt Institute of Chemical Biology, Center in Molecular Toxicology, Vanderbilt-Ingram Cancer Center, Vanderbilt University School of Medicine, Nashville, TN, 37232-0146

## **Supplemental Figures:**

**Supplemental Figure 1. (A)** Representative LC-MS (SRM) chromatogram of the  $[{}^{13}C, {}^{15}N_2]$ -M<sub>1</sub>dG internal standard. **(B)** Representative LC-MS (SRM) chromatogram of the M<sub>1</sub>dG channel of the  $[{}^{13}C, {}^{15}N_2]$ -M<sub>1</sub>dG internal standard. **(C)**. Representative LC-MS (SRM) chromatogram of the  $[{}^{15}N_5]$ -6-oxo-M<sub>1</sub>dG internal standard. **(D)**. Representative LC-MS (SRM) chromatogram of the 6-oxo-M<sub>1</sub>dG channel of the  $[{}^{15}N_5]$ -6-oxo-M<sub>1</sub>dG internal standard.

**Supplemental Figure 2.** Representative CID of the  $M_1dG$  peak from a representative sample from RKO cells treated with adenine propenal showing its fragmentation pattern. Fragment at 188.1 corresponds to the loss of deoxyribose. The CID pattern confirms that the peak detected in the cellular samples is  $M_1dG$ .

**Supplemental Figure 3.** Representative CID of the 6-oxo- $M_1dG$  peak from a representative sample from RKO cells treated with adenine propenal showing its fragmentation pattern. Fragment at 204.1 corresponds to the loss of deoxyribose. The CID pattern confirms that the peak detected in the cellular samples is 6-oxo- $M_1dG$ .

Figure S1.



Figure S2.



Figure S3.

