An Enzyme-Linked Immunosorbent Assay for the Detection of Mitochondrial DNA–Protein Cross-Links from Mammalian Cells

Wenyan Xu1 and Linlin Zhao1,2,*

1 Department of Chemistry, University of California Riverside, Riverside, CA 92521, USA
2 Environmental Toxicology Graduate Program, University of California Riverside, Riverside, CA 92521, USA
* Correspondence: Tel: +1-951-827-9081; linlin.zhao@ucr.edu

Supplementary Materials

Figure S1. Cross-linking reactions between TFAM and 80bp AP-DNA monitored by agarose gel. Left panel is an agarose gel electrophoresis performed without SDS. The right panel is an agarose gel electrophoresis performed in the presence of 1% SDS. M, DNA molecular weight ladder (New England Biolabs, cat No. B7025); AP, 80bp AP-DNA substrate; reaction times, 8, 24, 36 hours.
Figure S2. The enhanced chemiluminescent signals obtained from a microplate with an untreated polystyrene surface when different amount of TFAM-DPCs were coated onto the plate.

Figure S3. Ct-values from turbonuclease treated mitochondria (Treated) or untreated mitochondria (NC) indicating the removal of nuclear DNA while mitochondrial DNA remained intact. NTC, non-template control.
Figure S4. Evaluation of mtDNA purity (based on qPCR data) under different amounts of turbonuclease with mitochondria from HeLa cells and HEK293 cells.