

Supplementary material

Synergic toxicity of pollutants and ultraviolet from a mitochondrial perspective

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MATERIAL AND METHODS

Mitochondrial fusion

Quantitative assessment of mitochondrial fusion was performed by western blot. Primary antibody against MFN1 (D6E2S) (#14739; Cell Signaling Technology, Danvers MA, USA) 1:1000 was used for an overnight incubation at 4 °C and secondary anti-rabbit HRP-conjugated IgG antibodies (Sigma-Aldrich, Oakville, ON, Canada; diluted at 1:5000) was incubated 1 h at room temperature. Proteins were visualized using chemiluminescence reagents (Thermo Fisher Scientific) with a C-DiGit Blot Scanner (LI-COR Biosciences, Lincoln, NE, USA) and analysed by Image Studio Lite software version 5.0 (LI-COR Biosciences).

RESULTS

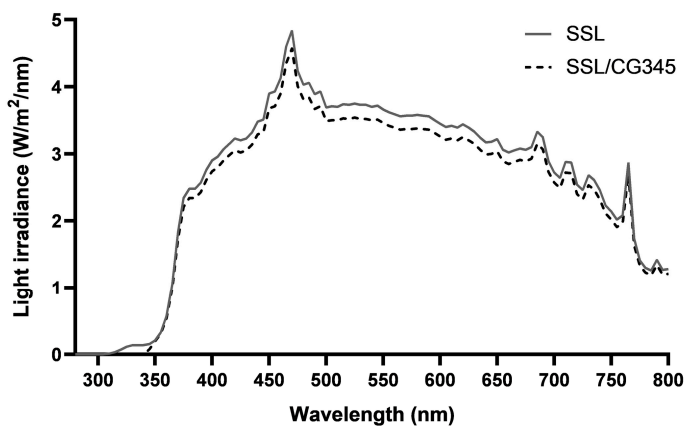


Figure S1: Emission spectra of the SSL with filter CGA345. Light source output consists of an Oriel solar simulator (SSL) with an ozone-free xenon short arc 1.6 kW lamp combined with an air

mass 1.5 G (AM1.5 G) filter (grey solid line, ssl) and a Schott CGA-345 (black dashed line, UVAssl)

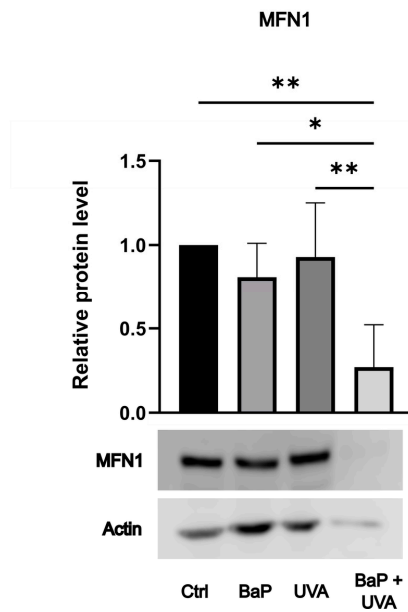


Figure S2. Mitochondrial fusion when exposed to BaP and/or UVAssl. Western blot protein analysis of MFN1 of skin fibroblasts exposed to BaP and/or UVAssl. Quantification of the blot shows a reduction of mitochondrial fusion in BaP (200 nM)/UVAssl (25 kJ/m²) exposed cells but not in the other conditions (untreated, BaP alone and UVAssl alone). All values are mean \pm SD (N=4). *p<0.05; **p<0.005.