Analytical and Bioanalytical Chemistry

Electronic Supplementary Material

Indirect detection of superoxide in RAW 264.7 macrophage cells using microchip electrophoresis coupled to laser induced fluorescence

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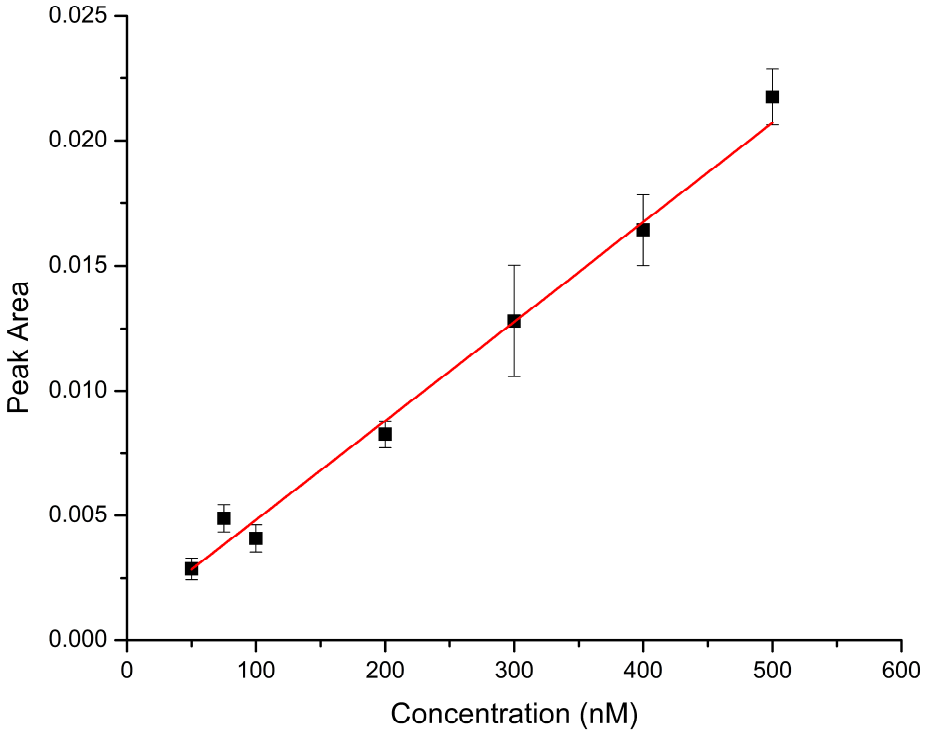

Fig. S1 Calibration curve for 2-OH-MitoE^{+} obtained from the reaction between MitoHE and NDS. $R^2 = 0.97$. $y=8.6\times10^{-4} + (4.0\times10^{-5})\,x$

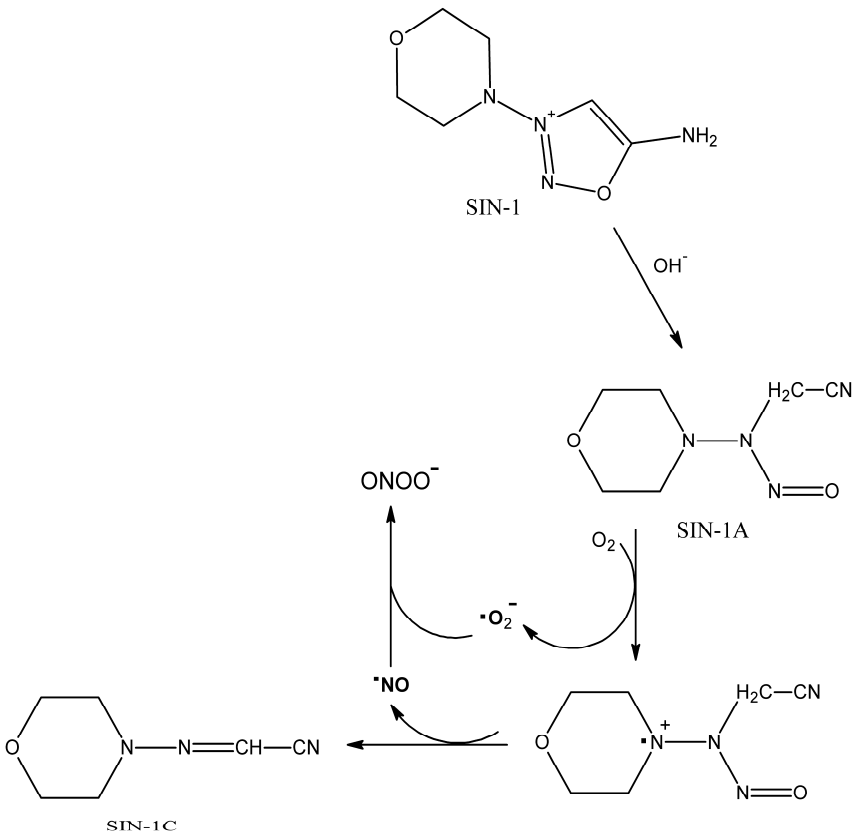

Fig. S2 SIN-1 decomposition in presence of OH^-. The reaction generates NO and superoxide that will react to form peroxynitrite. Once inside a cell, eterases can also trigger a similar reaction pathway, producing SIN-1C and the byproducts nitric oxide, superoxide and peroxynitrite. Reproduced from Hulvey *et al*. [33]

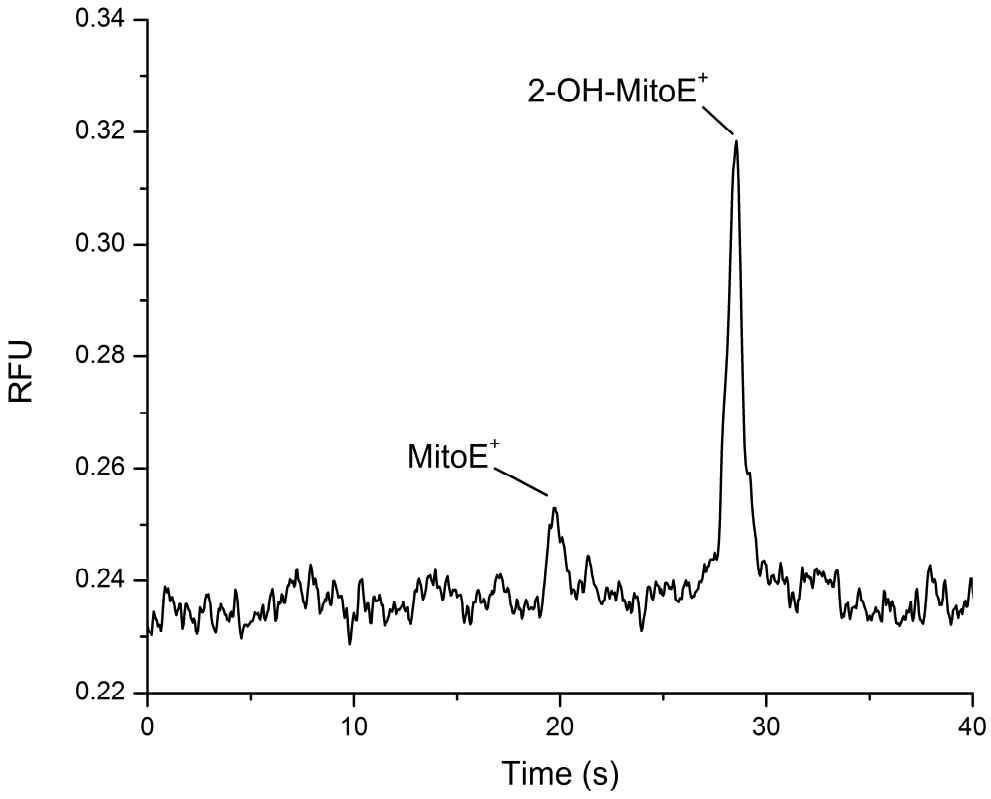

Fig. S3 Bulk cell lysate analysis of 24 h PMA stimulated RAW 264.7 in the presence of both DDC and 2ME inhibitors. Run showing the separation both MitoE+ and in 2-OH-MitoE$^+$ peaks produced due to prolonged reaction between free MitoHE with oxidizing species other than superoxide or due to probe auto-oxidation