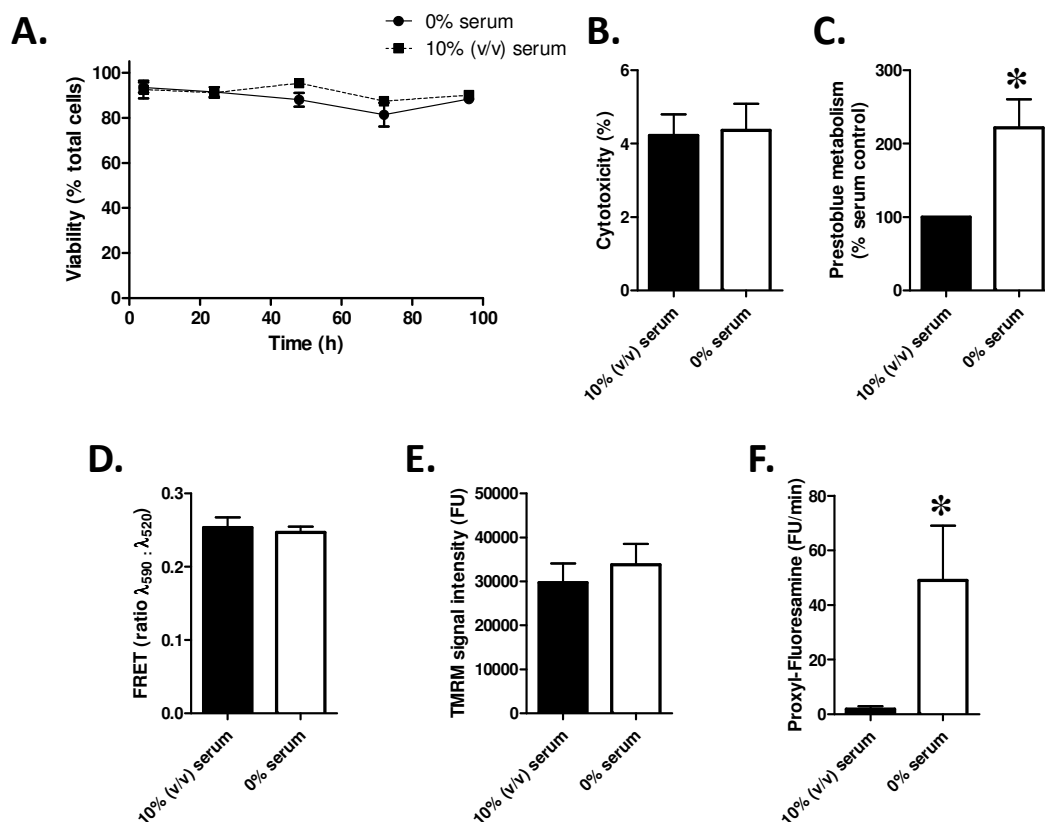


Supplementary Figure 1. *CF10 cell responses to serum deprivation.* **A.** Trypan blue exclusion was used to determine the proportion of cells that retained membrane integrity over four days after serum withdrawal. Counts were performed using a Countess (Invitrogen) cell counter. No change in viability was observed between the serum deprived cells and cells incubated with 10% (v/v) serum (Two-way ANOVA, $F = 2.36$, $p = 0.138$, $n = 4$). **B.** Cytotoxicity, as determined by LDH release from cells, was assayed 24 hours post serum deprivation. No significant increase in LDH release was seen following serum withdrawal (students t-test, $t = 0.149$, $p = 0.889$, $n = 3$). **C.** Metabolism of PrestoBlue, a formazan based dye, shows a significant increase in signal over normal serum control cells (students t-test, $t = 3.17$, $p = 0.043$, $n = 3$). **D & E.** TMRM mitochondrial membrane potential stain. **D.** Cells were loaded with mitotracker green (which accumulates in polarised mitochondria and becomes covalently linked) under normal culture conditions then transferred into serum +/- media for 30 minutes. Media was then changed to include the TMRM membrane potential dye (Invitrogen) and FRET between the two fluorophores measured. A change in FRET efficiency would be indicative of mitochondrial membrane permeabilisation, which results in functional impairment of the organelle [1,2]. No change in FRET efficiency is seen (students t-test, $t = 0.408$, $p = 0.698$, $n = 4$) and the relative amounts of TMRM taken up by the serum deprived cells (**E**) are the same as that measured for cells incubated under normal serum conditions (students t-test, $t = 0.637$, $p = 0.548$, $n = 4$). **F.** Proxyl-Fluorescamine spin trapping shows a significant increase in the rate of free radical binding (and therefore fluorescence production) in the serum deprived cells (students t-test, $t = 2.473$, $p = 0.045$, $n = 4$).



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