

**Supplementary Figure 5.** *PrP23-89 increases cellular viability during serum starvation.*

Cells were serum starved without and with 1  $\mu$ M PrP23-89 alone, 1  $\mu$ M PrP23-89 with 4  $\mu$ M CuCl<sub>2</sub> or with 4  $\mu$ M CuCl<sub>2</sub> alone and incubated under normal culture conditions for 24 hours. Viability was determined by MTS metabolism (A) and CyQuant DNA stain (B). The 10% (v/v) serum condition is not shown in the MTS viability plot as serum deprivation alters cellular metabolism resulting in the serum deprived condition appearing falsely viable, instead results are shown normalised to the serum deprived condition. MTS metabolism shows that PrP23-89 is able to increase cellular viability. Copper-saturated PrP23-89 could also increase cellular viability but to a lesser extent and this was not significantly different from the copper alone condition ( $F = 13.93$ ,  $p = 0.0003$ ,  $n = 4$ ,  $*P < 0.05$ ,  $***p < 0.001$ ). These results are supported by those seen for CyQuant DNA quantification. CyQuant analysis shows that PrP23-89 increases viability independent of copper saturation and this is also significantly increased over the copper alone condition ( $F = 12.11$ ,  $p = 0.0008$ ,  $n = 5$ ,  $*p < 0.05$ ).

