PHENOTYPIC SCREENING

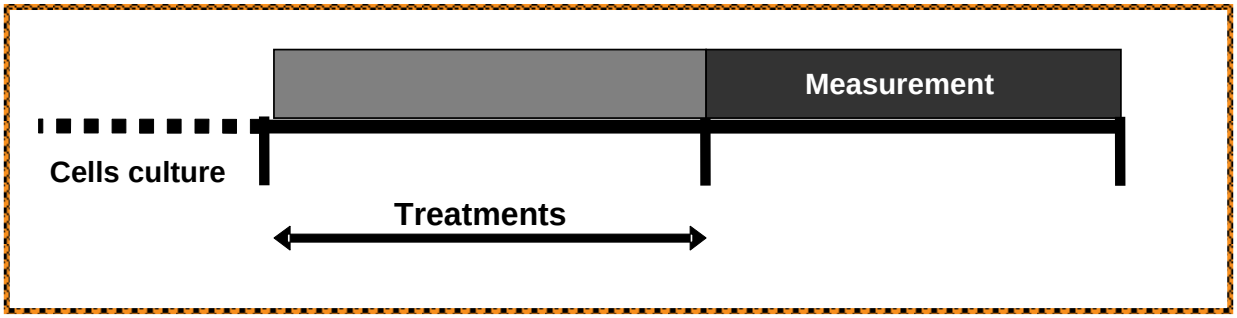
OXIDATIVE STRESS ASSAY

OUR MODEL

The oxidative stress is an imbalance between the production of reactive oxygen strains and the capacity of the cell to remove them. The excess of these strains finally produce peroxides and free radicals that damage cell components and compromise the cell functions.

A specific probe called CM-H2DCFDA (Molecular probes) is used to evaluate the redox level which in contact with the reactive oxygen strains produces a specific fluorescence and it is possible to evaluate the redox status in living cells*. The cells are incubated with tested compounds and the fluorescent signal respect to control is evaluated using the Cell Insight CX7 HCS platform.

** See our catalog of primary cells at www.innoprot.com and select the cell type you require.*



RESULTS

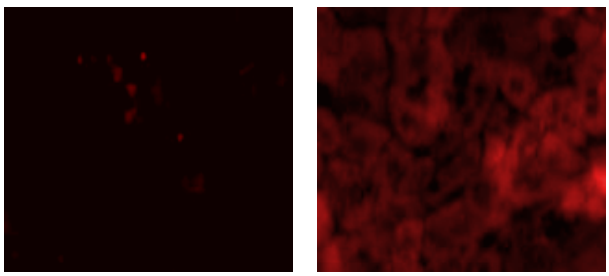


Figure 1. Oxidatixe Stress measurement in rat neurons. The rat neurons were cultured under basal conditions (left) and treated with cisplatin 10 µg/ml during 24 hours (right, oxidative stress positive control). Cell cultures were treated with the CM-H2DCFDA probe and the fluorescent signal was measured using the BD Pathway 855.

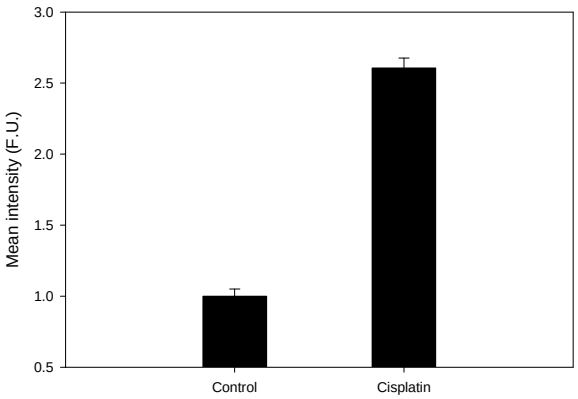


Figure 2. Cisplatin provokes statistically significant augmentation of redox level activation respect to untreated control in rat neurons.

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