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Resazurin cell viability assay in hiPSC-derived neurons

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We use this protocol and it's working

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Abstract

This protocols describes the steps to follow in order to assess cell viability in hiPSC-derived ineurons cultured in 96-well plates via resazurin.



Resazurin preparation and addition to cells

- 1 A stock solution was prepared at a concentration of 10mg/ml by dissolving resazurin dye (7-hydroxy-3H-phenoxazin-3-one 10-oxide) in dH₂O.
- 2 Day 14 neurons were cultured in  200 μ L culture media without antioxidants. Ferroptosis inducer treatments were performed for 24 hours.
- 3 To assess viability,  20 μ L of the resazurin stock solution was directly added to the each well of a 96-well plate containing  200 μ L of culture media (10% of cell culture volume per well – final concentration 100mg/ml) and plate was return to the  37 °C incubator for  02:00:00

Resazurin readout

- 4 Following the 2h resazurin incubation, samples were analyzed fluorometrically on a microplate reader (The SPARK® Multimode microplate reader, Ex = 540nm, Em = 600nm). Background signals obtained from cell-free wells were subtracted from each sample.
- 5 Cell viability under treatment conditions were reported as a percentage relative to untreated control cells.