

NMDA Toxicity in Primary Chicken Telencephalic Neurons

Compound testing for the following indications:

- Stroke
- Ischemia
- Alzheimer's Disease
- Neuroprotection

Model:

Primary E8 chicken telencephalic neurons are cultured until DIV 8 and are exposed to 100 μ M NMDA for 24 hours. The effect of test compounds on NMDA mediated lesions can be evaluated for viability by using the MTT assay, for apoptosis by YO-PRO-1 (Invitrogen) labelling or other customized endpoints.

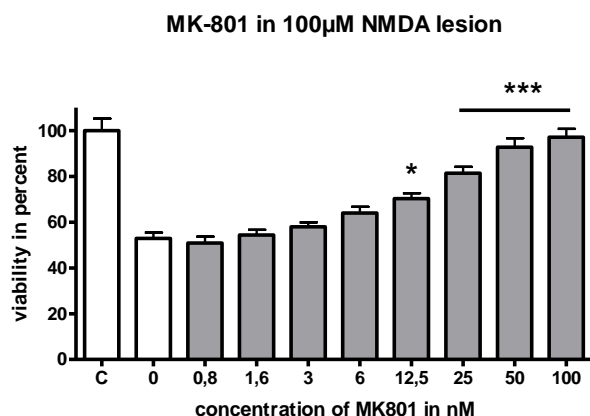


Fig.1. Effect of MK-801 on primary telencephalic chicken neurons lesioned with 100 μ M NMDA. Viability was assessed by the MTT assay. MK-801 significantly improved cell viability in a dose dependent manner.

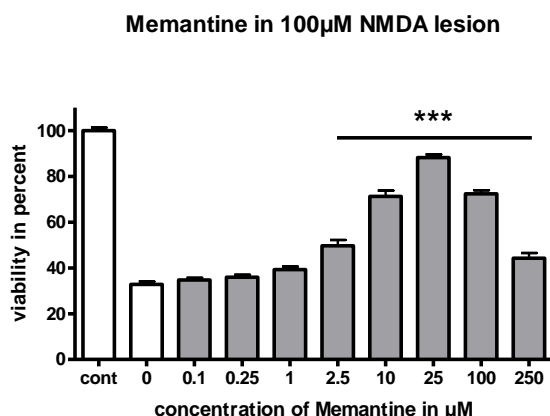


Fig.2. Effect of Memantine on primary telencephalic chicken neurons lesioned with 100 μ M NMDA. Viability was assessed by the MTT assay. Memantine significantly improved cell viability in a dose dependent manner.

Remark: This assay can also be performed in rat hippocampal or cortical neurons.