

Anticonvulsant Screening Program

Test 76 Results - In-vitro Hippocampal Slice Culture Neuroprotection Assay (NP)

ASP ID: 87 U Screen ID: 3

Solvent Code: DMSO Solvent Prep:

Test Date: 27-Aug-2009

Reference: 423:197,202,216,223,227

Summary of NP Assay: NMDA

● Test Result: No Neuroprotection

Comments:

TEST 76: *in vitro* HIPPOCAMPAL SLICE CULTURE NEUROPROTECTION ASSAY

Compound 1 : ADD Number: 000087

Batch: U

Date Started: 27-Aug-2008

Compound 2 : ADD Number:

Batch:

Date Completed: 02-Oct-2008

References: 423: 197, 202, 216, 223, 227

Excitotoxin: NMDA

Insult Duration: 4 Hours

Solvent: DMSO

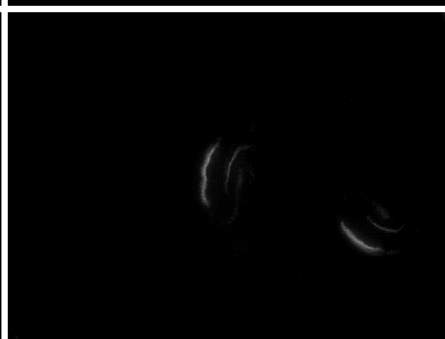
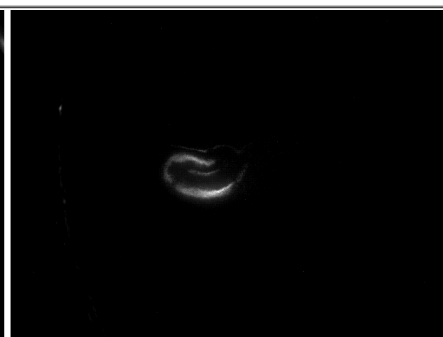
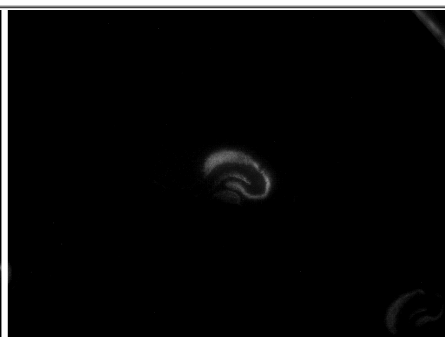
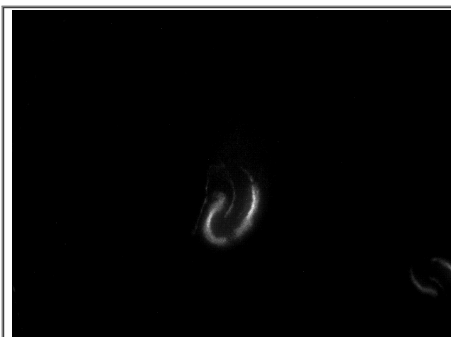
Primary Screen Results: No neuroprotection observed

EXPERIMENT IMAGES & WELL DESCRIPTION

A1 NMDA 10 μ M

A2 NMDA 10 μ M

A3 NMDA 10 μ M



B1 NMDA 10 μ M +

B2 NMDA 10 μ M +

B3 NMDA 10 μ M +

000087 100 μ M

000087 100 μ M

000087 100 μ M

PRIMARY SCREEN EXPERIMENT DESCRIPTION

The "Primary Screen Experiment" is a qualitative assessment of the ability of a compound to prevent excitotoxic cell death. Organotypic hippocampal slice cultures are treated with N-methyl-D-aspartate (NMDA) or kainic acid (KA) to induce neuronal cell death. Propidium iodide (PI), a membrane-impermeant compound, is included in all wells of the culture plate. Dying cells have compromised cell membranes, thus PI may diffuse into the cell, intercalate with DNA and fluoresce. Thus, the intensity of the PI fluorescence is proportional to the amount of cell death in the individual slices. Hippocampal slice cultures are treated with the excitotoxin alone, or where indicated above, with the excitotoxin and either one or two investigational compounds at the concentrations indicated. If neuroprotection occurs as a consequence of the added compound, slice cultures will have a visibly reduced fluorescent intensity when compared to the slice cultures that have been treated with the excitotoxin alone.