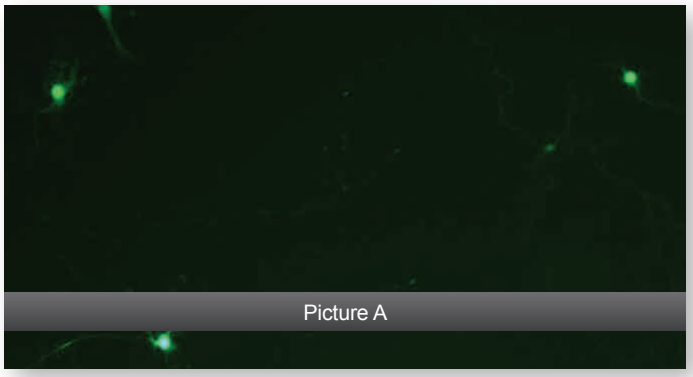
nanoTherics Limited

magnefect-nano™

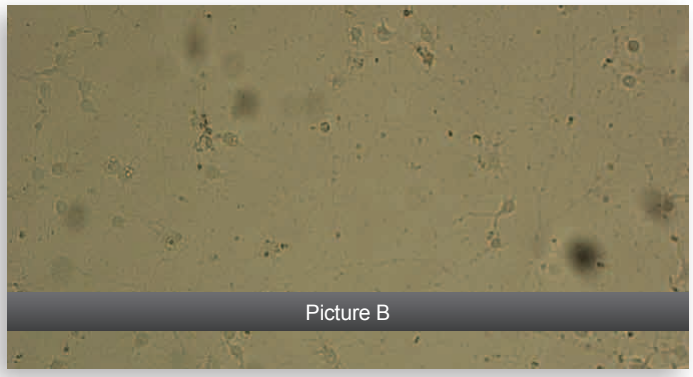
High Performance Transfection Products

Cell Specific Transfection Protocol

MATURE RAT HIPPOCAMPAL NEURON CELLS DIV 21



Picture A



Picture B

Primary Hippocampal Neuron Cells were transfected in a PEI-coated Grenier Bio-One® 96-well tissue culture treated plate using the magnefect-nano™ transfection system with 0.15 µl NeuroMag and 0.08 µg of a plasmid encoding GFP driven by a Synapsin-1 promoter per well. Cells were analysed 72 hours post-transfection by fluorescence microscopy **(A)** and light microscopy **(B)**.

CELL SEEDING PARAMETERS (BEST CONDITIONS)

Plate type: Grenier Bio-One® 96-well plate (tissue culture treated), coated with 15 µg/ml PEI
Cell seeding density: 2.0 x10^4 cells/well
Cell seeding volume: 100 µl
Cell seeding time: 21 days prior to transfection
Serum starve: Yes

MAGNEFECT-NANO™ PARAMETERS (BEST CONDITIONS)

Frequency: 2 Hz
Displacement: 0.2 mm
Time: 30 minutes (3600 cycles)
DNA-nTMAG complexes were left in wells
Optimal length of time for over expression: 72 hours

TRANSFECTION COMPLEX (BEST CONDITIONS)

Transfection reagent: Nanotherics/Oz Biosciences NeuroMag
Transfection reagent (volume/well): 0.15 µl
DNA (mass/well): 0.08 µg
Transfection medium: Serum-free DMEM, topped up to 200 µl final volume with NeuroBasal™ medium with supplements
Transfection volume: 100 µl

CELL INFORMATION

Cell type: Rat Hippocampal Neurons (Neuromics)
Species: Rat
Medium: Serum-free NeuroBasal™ medium with 2% B27 Supplement and 0.5 mM GlutaMax (Invitrogen)
Cell density prior to transfection: Medium (50 – 60%)
Culture condition: Temperature, 37°C; Atmosphere: 95% air, 5% CO_2

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