

Materials List for:

A Strategy to Identify Compounds that Affect Cell Growth and Survival in Cultured Mammalian Cells at Low-to-Moderate Throughput

Nasir Malik¹, Rohini Manickam¹, Muznabanu Bachani¹, Joseph P. Steiner¹

¹National Institute of Neurological Disorders and Stroke (NINDS), Neurotherapeutic Development Unit (NTDU), National Institutes of Health (NIH)

Correspondence to: Nasir Malik at malikn@mail.nih.gov

URL: <https://www.jove.com/video/59333>

DOI: [doi:10.3791/59333](https://doi.org/10.3791/59333)

Materials

Name	Company	Catalog Number	Comments
B-27 (50X)	ThermoFisher Scientific	17504001	Neural stem cell medium component.
BenchTop pipettor	Sorenson Bioscience	73990	Provides ability to pipette compound library into a 96-well plate in one shot.
BioLite 96 well multidish	Thermo Scientific	130188	Any 96 well cell culture plate will work. We use these in our work.
Cell culture microscope	Nikon	Eclipse TS100	Visual inspection of cells to ensure proper density.
Cytation 5/ Imaging reader	BioTek	CYT3MFV	Used for cell imaging and absorbance readings.
DMSO	Fisher Scientific	610420010	Solvent for compounds used in screen. Dissolves MTT precipitates to facilitate absorbance measurements.
FGF-basic	Peptotech	100-18B	Neural stem cell medium component.
GelTrex	ThermoFisher Scientific	A1413202	Neural stem cell basement membrane matrix. Allows cells to attach to cell culture plates.
Gen5 3.04	BioTek		Analysis software to determine cell counts for tdTomato expressing cells.
Glutamine	ThermoFisher Scientific	25030081	Neural stem cell medium component.
Microtest U-Bottom	Becton Dickinson	3077	Storage of compound libraries.
MTT	ThermoFisher Scientific	M6494	Active assay reagent to determine cellular viability.
Multichannel pipette	Rainin	E8-1200	Column-by-column addition of cell culture medium, MTT, or DMSO.
Neurobasal medium	ThermoFisher Scientific	21103049	Neural stem cell base medium.
RFP filter cube	BioTek	1225103	Filter in Cytation 5 used to image tdTomato expressing cells.
TrypLE	ThermoFisher Scientific	12605036	Cell dissociation reagent.