

Materials List for:

# Neural Differentiation of Mouse Embryonic Stem Cells in Serum-free Monolayer Culture

Wikrom Wongpaiboonwattana<sup>1</sup>, Marios P. Stavrdis<sup>1</sup>

<sup>1</sup>Division of Cancer Research, College of Medicine, Dentistry and Nursing, University of Dundee

Correspondence to: Marios P. Stavrdis at [M.Stavrdis@dundee.ac.uk](mailto:M.Stavrdis@dundee.ac.uk)

URL: <https://www.jove.com/video/52823>

DOI: [doi:10.3791/52823](https://doi.org/10.3791/52823)

## Materials

Name	Company	Catalog Number	Comments
Fetal bovine serum	Life Technologies	10270-106	
DMEM/F12	Life Technologies	11320-074	
Neurobasal medium	Life Technologies	21103-049	
StemPro Accutase Cell Dissociation Reagent	Life Technologies	A11105-01	
B-27 Supplement, serum free	Life Technologies	17504-044	
Insulin	Sigma	I6634	Reconstitute with sterile 0.01 M HCl
Apo-transferrin	Sigma	T1147	Reconstitute with sterile water
Progesterone	Sigma	P8783	Reconstitute with ethanol
Putrescine	Sigma	P5780	Reconstitute with sterile water
Sodium selenite	Sigma	S5261	Reconstitute with sterile water
Bovine albumin fraction V	Life Technologies	15260-037	
L-Glutamine	Life Technologies	25030-081	Make sure it is completely dissolved before use as glutamine is usually sedimented
Gelatine	Sigma	G1890	
6-well tissue culture dish	Thermo Scientific	140675	
24-well tissue culture dish	Thermo Scientific	142475	
96-well tissue culture dish	Thermo Scientific	167008	
GMEM	Life Technologies	11710-035	
MEM Non-essential amino acids solution	Life Technologies	11140-050	
Sodium pyruvate	Life Technologies	11360-070	
2-mercaptoethanol	Sigma	M7522	
Leukaemia inhibitory factor	prepared in-house as in Smith 1991 Journal of Tissue Culture Methods		
Tween-20	Sigma	P1379	
4',6-Diamidino-2-phenylindole dihydrochloride (DAPI)	Sigma	D9542	Protect from light
Mouse anti $\beta$ III tubulin IgG antibody	Covance	MMS-435P	
Fluorescence-labelled anti-mouse IgG antibody	Life Technologies	A31571	Protect from light
25 cm <sup>2</sup> tissue culture flask	Thermo Scientific	156367	