

Materials List for:

Neuronal Differentiation from Mouse Embryonic Stem Cells In vitro

Xiang Mao*1, Shasha Zhao*2

¹Wuhan Center for Disease Control and Prevention

²College of Life Science and Health, Wuhan University of Science and Technology

Correspondence to: Shasha Zhao at zhaoshasha@wust.edu.cn

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Materials

Name	Company	Catalog Number	Comments
Anti-Nestin antibody [Rat-401]	Abcam	Ab11306	stored at -80 °C, avoid repeated freezing and thawing
Anti-β-Tubulin III antibody produced in rabbit	Sigma Aldrich	T2200	stored at -80 °C, avoid repeated freezing and thawing
Alexa Fluor 488-Labeled Goat Anti- Mouse IgG	Beyotime	A0428	stored at -20 °C and protect from light
B-27 Supplement (50X), serum free	Gibco	17504044	stored at -20 °C, and protect from light
CHIR-99021 (CT99021)	Selleck	S1263	stored at -20 °C
Coverslips	NEST	801007	
Cy3-Labeled Goat Anti-Rabbit IgG	Beyotime	A0516	stored at -20 °C and protect from light
DME/F-12 1:1 (1x)	HyClone	SH30023.01B	stored at 4 °C
Fetal bovine serum	HyClone	SH30084.03	stored at -20 °C, avoid repeated freezing and thawing
Fluorescence microscopy	Olympus	CKX53	
Gelatin	Gibco	CM0635B	stored at room temperature
GlutaMAX Supplement	Gibco	35050061	stored at 4 °C
Immunol Staining Primary Antibody dilution Buffer	Beyotime	P0103	stored at 4 °C
KnockOut DMEM/F-12	Gibco	12660012	stored at 4 °C
KnockOut Serum Replacement	Gibco	10828028	stored at -20 °C, avoid repeated freezing and thawing
Leukemia Inhibitory Factor human	Sigma	L5283	stored at -20 °C
Mounting Medium With DAPI - Aqueous, Fluoroshield	Abcam	ab104139	stored at 4 °C and protect from light
MEM Non-essential amino acids solution	Gibco	11140076	stored at 4 °C
N-2 Supplement (100X)	Gibco	17502048	stored at -20 °C and protect from light
Normal goat serum	Jackson	005-000-121	stored at -20 °C
Neurobasal Medium	Gibco	21103049	stored at 4 °C
Nonadhesive bacterial dish	Corning	3262	
Phosphate Buffered Saline (1X)	HyClone	SH30256.01B	stored at 4 °C
Penicillin/ Streptomycin Solution	HyClone	SV30010	stored at 4 °C
PD0325901(Mirdametinib)	Selleck	S1036	stored at -20 °C

^{*}These authors contributed equally

Retinoic acid	Sigma	R2625	stored at -80 °C and protect from light
Strain 129 Mouse Embryonic Stem Cells	Cyagen	MUAES-01001	Maintained in feeder-free culture system
Stem-Cellbanker (DMSO free)	ZENOAQ	stem cellbanker DMSO free	stored at -20 °C, avoid repeated freezing and thawing
Trypsin 0.25% (1X) Solution	HyClone	SH30042.01	stored at 4 °C
Triton X-100	Sigma	T8787	
2-Mercaptoethanol	Gibco	21985023	stored at 4 °C and protect from light
4% paraformaldehyde	Beyotime	P0098	stored at -20 °C
6 - well plate	Corning	3516	
60 mm cell culture dish	Corning	430166	
15 ml centrifuge tube	NUNC	339650	