

Materials List for:

Quantitative Measurement of Relative Retinoic Acid Levels in E8.5 Embryos and Neurosphere Cultures Using the F9 RARE-LacZ Cell-based Reporter Assay

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Materials

Name	Company	Catalog Number	Comments
C3H/HeSn-Gpr161vl/J mouse strain	Jackson Laboratory	000316	
F9 RARE-LacZ reporter cell line			from Dr. Michael Wagner (SUNY Downstate Medical Center) and Ben Thiede (Dr. Jeff Corwin lab, University of Virginia)
DMEM/F-12 (with L-glutamine and HEPES)	ThermoFisher Scientific	11330-057	
Fetal Bovine Serum (FBS), qualified	ThermoFisher Scientific	26140-079	Store at -20 °C in 10-ml aliquots to avoid repeated freeze-thaw; warm in 37 °C for media preparation
Penicillin/Streptomycin	ThermoFisher Scientific	15140-122	Store at -20 °C in 10-ml aliquots to avoid repeated freeze-thaw; light-sensitive
G418	ThermoFisher Scientific	10131-027	Store at 4 °C; light-sensitive
2% Gelatin	Sigma Aldrich	G1393	Store at 4 °C
B-27 supplement (2 % stock solution)	ThermoFisher Scientific	17504-044	Store at -20 °C in 1-ml aliquots to avoid repeated freeze-thaw; warm at room temperature for media preparation
Murine Epidermal Growth Factor (EGF)	PeproTech	315-09	Prepare 100 µg/ml stock solution in 0.1% bovine serum albumin (BSA) in 1xPBS; prepare working concentrations by diluting with 1x PBS; store at -20 °C
Murine Fibroblast Growth Factor (FGF)-basic	PeproTech	450-33	Prepare 100 µg/ml stock solution in 0.1% bovine serum albumin (BSA) in 1x PBS; prepare working concentrations by diluting with 1x PBS; store at -20 °C
50% glutaraldehyde	Amresco	M155	Store at 4 °C
Sodium deoxycholate monohydrate (C ₂₄ H ₃₉ NaO ₄ · H ₂ O)	Sigma Aldrich	D5670	Store at RT
X-gal (5-bromo-4-chloro-3-indolyl-β-d-galactopyranoside)	Promega	V3941	Store stock at -20 °C
Dimethyl sulfoxide (DMSO)	Sigma Aldrich	41639	Store at RT
all-trans Retinoic Acid (at-RA)	Sigma Aldrich	R-2625	Store 1 ml aliquots of stock in -80 °C; extremely sensitive to light
TrypLE Express	ThermoFisher Scientific	12605-010	Store at RT

0.25% trypsin-EDTA	ThermoFisher Scientific	25200-056	alternative to TrypLE Express; aliquot and store at -20 °C
Hank's Balanced Salt Solution (HBSS)	ThermoFisher Scientific	14170-112	Store at 4 °C
10x phosphate buffered solution (PBS)	ThermoFisher Scientific	10010-023	Store at 4 °C
Papain	Worthington	LK003176	Store at 4 °C.
Trypsin	Worthington	LS003703	Store in 1 ml aliquots at -20 °C.
Hyaluronic acid	Calbiochem	385908	Store 200 µl aliquots at -20 °C.
DNaseI	Worthington	LS002139	Store in 200 µl aliquots at -20 °C
Kynurenic acid	Sigma Aldrich	K3375	Store in 200 µl aliquots at -20 °C
95% ethanol			
Mr. Frosty Freezing container	ThermoFisher Scientific	5100-0001	
10 cm culture dish (non-cell culture treated)			
10 cm culture dish (cell culture treated)			
6 cm culture dish (non-cell culture treated)			
96-well cell culture plates			
1.5 ml microcentrifuge tubes			
1.5 ml amber microcentrifuge tubes			
1.5 ml cryovials			
37 °C water bath			
surgical scissors			
fine surgical scissors			
no. 5 forceps			
blunt-ended forceps			
scalpel blade			
glass pasteur pipettes			
cotton			
alcohol lamp			
ELISA plate reader			
stereomicroscope			