

Materials List for:

Compartmentalization of Human Stem Cell-Derived Neurons within Pre-Assembled Plastic Microfluidic Chips

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URL: <https://www.jove.com/video/59250>

DOI: [doi:10.3791/59250](https://doi.org/10.3791/59250)

Materials

Name	Company	Catalog Number	Comments
Alexa Fluor hydrazide 488	ThermoFisher Scientific	A10436	
Alexa Fluor secondary antibodies	ThermoFisher Scientific		1:1000
anti_beta-tubulin III	Aves	TUJ	1:1000
anti-vGAT antibody	Synaptic Systems	131 003	1:1000
anti-vGlut1 antibody	NeuroMab	75-066	clone N28/9, 1:100
complete neural stem cell media:			
REC HU EGF 10 UG BIOSOURCE (TM)	ThermoFisher Scientific	PHG0314	20ng/mL
REC HU FGF BASIC 10 UG BIOSOURCE (TM)	ThermoFisher Scientific	PHG0024	20ng/mL
GlutaMAX Supplement (100X)	ThermoFisher Scientific	35050061	2mM
KnockOut DMEM/F-12	ThermoFisher Scientific	12660012	
StemPro Neural Supplement	ThermoFisher Scientific	A1050801	2%
Epifluorescence imaging system	EVOS Fluorescence imaging system	AMF4300	10x objective
fluorinated ethylene propylene film	American Durafilm	50A	0.5 mil thickness
Fluoromount G	ThermoFisher Scientific	00-4958-02	
Gibco DPBS without Calcium and Magnesium	ThermoFisher Scientific	14190144	
GIBCO HUMAN NSC (H9) KIT COMBO KIT	Gibco	N7800200	
Gibco Laminin	ThermoFisher Scientific	23017015	
Glass Pasteur pipettes	Sigma-Aldrich	CLS7095D5X SIGMA	5.75 in length
H9-DERIVED HU NEURAL STEM CELL 1E6 CELLS/VIAL; 1 ML	ThermoFisher Scientific	510088	
hibernate-E Medium	ThermoFisher Scientific	A1247601	
Incubator, 5% CO ₂ 37 °C			
Laser scanning confocal imaging system	Olympus	FV3000RS	30x silicone oil objective
modified rabies virus	Salk Institute for Biological Studies	G-deleted Rabies-eGFP	Material Transfer Agreement required
Mr. Frosty	ThermoFisher Scientific	5100-0001	

Neural differentiation media			Per 100 mL.
Antibiotic-Antimycotic (100x)	ThermoFisher Scientific	15240112	1mL (100X)
Ascorbic acid	Sigma Aldrich	A8960	200mM
BDNF	ThermoFisher Scientific	PHC7074	40 ng/mL
Gibco B27 Plus Supplement (50X)	FisherScientific	A3582801	2mL (50X)
Gibco CultureOne Supplement (100X)	FisherScientific	A3320201	1mL (100X)
Gibco Neurobasal Plus Medium	FisherScientific	A3582901	
StemPro Accutase Cell Dissociation Reagent	ThermoFisher Scientific	A1110501	
Taylor Wharton Liquid N2 dewar	FisherScientific	20HCB11M	
triton X-100	ThermoFisher Scientific	28314	
XC pre-coat	Xona Microfluidics, LLC	XC Pre-Coat	included with XonaChips
XonaChip	Xona Microfluidics, LLC	XC450	450 µm length microgroove barrier
Humidifier Tray	Xona Microfluidics, LLC	humidifier tray	