

Materials List for:

Interfacing 3D Engineered Neuronal Cultures to Micro-Electrode Arrays: An Innovative *In Vitro* Experimental Model

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Materials

Name	Company	Catalog Number	Comments
Laminin	Sigma-Aldrich	L2020	0.05 µg/ml
Poly-D-lysine	Sigma-Aldrich	P6407	0.05 µg/ml
Trypsin	Gibco	25050-014	0.125% diluted 1:2 in HBSS w/o Ca ⁺⁺ , Mg ⁺⁺
DNAase	Sigma-Aldrich	D5025	0.05% diluted in Hanks solution
Neurobasal	Gibco Invitrogen	21103049	culture medium
B27	Gibco Invitrogen	17504044	2% medium supplement
Fetal bovine serum (FBS)	Sigma-Aldrich	F-2442	10%
Glutamax-I	Gibco	35050038	0.5 mM
gentamicin	Sigma-Aldrich	G.1272	5 mg/L
Poly-Dimethyl-Siloxane (PDMS)	Corning Sigma	481939	curing agent and the polymer
Micro-Electrode Arrays	Multi Channel Systems (MCS)	60MEA200/30-Ti-pr	MEA with: Electrode grid 8x8; Electrode spacing and diameter 200 and 30 µm, respectively; plastic ring without thread
Microbead	Distrilab-Duke Scientific	9040	1 gr Glass Part. Size Stds 40 µm
Transwell	Costar Sigma	CLS 3413	multiwell plates with membrane insert (6.5 mm diameter porous 0.4 µm)
HBSS w/o Ca ⁺⁺ , Mg ⁺⁺	Gibco Invitrogen	14175-052	
Hanks Buffer Solution	Sigma	H8264	
Teflon	Sigma	430935-5G	polytetrafluoroethylene
Rat	Sprague Dawley	Wistar Rat	
Confocal Microscopy Upright	Leica	TCS SP5 AOBS	
20.0x0.50 WATER objective	Leica	Leica HCX APO L U-V-I	
40.0x0.80 WATER objective	Leica	Leica HCX APO L U-V-I	
25.0x0.95 WATER objective	Leica	HCX IRAPO L	