

Materials List for:

# Rapid Neuronal Differentiation of Induced Pluripotent Stem Cells for Measuring Network Activity on Micro-electrode Arrays

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URL: <https://www.jove.com/video/54900>

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## Materials

Name	Company	Catalog Number	Comments
Lebovitz's L-15 medium	Gibco	11415-064	
B-27 supplement	Gibco	0080085SA	
Poly-D-Lysine (PDL)	Sigma-Aldrich	P6407	
Ca <sup>2+</sup> /Mg <sup>2+</sup> -free HBSS	Gibco	14175-095	
0.05% Trypsin-EDTA	Gibco	25300-054	
2.5% Trypsin	Gibco	15090-046	
High-glucose DMEM	Gibco	11965-092	
FBS (Fetal Bovine Serum)	Sigma-Aldrich	F2442-500ML	
Penicillin/Streptomycin	Sigma-Aldrich	P4333	
70 µm cell strainer	BD Falcon	352350	
DPBS	Gibco	14190-094	
psPAX2 lentiviral packaging vector	Addgene	Plasmid #12260	
pMD2.G lentiviral packaging vector	Addgene	Plasmid #12259	
Basement membrane matrix	Gibco	A1413201	
DMEM/F12	Gibco	11320-074	
Cell detachment solution	Sigma-Aldrich	A6964	
E8 medium	Gibco	A1517001	
ROCK inhibitor	Gibco	A2644501	Alternatively, ROCK inhibitors like thiazovivin can be used.
Polybrene	Sigma-Aldrich	H9268-5G	
G418	Sigma-Aldrich	G8168-10ML	
Puromycin	Sigma-Aldrich	P9620-10ML	
Vitronectin	Gibco	A14700	
6-well MEAs	Multi Channel Systems	60-6wellIMEA200/30iR-Ti-tcr	
Glass coverslips	VWR	631-0899	
Poly-L-Ornithine (PLO)	Sigma-Aldrich	P3655-10MG	
Laminin	Sigma-Aldrich	L2020-1MG	
Doxycyclin	Sigma-Aldrich	D9891-5G	
N-2 supplement	Gibco	17502-048	
Non-essential amino acids	Sigma-Aldrich	M7145	

NT-3, human recombinant	Promokine	C66425	
BDNF, human recombinant	Promokine	C66212	
Trypsin-EDTA	Gibco	25300-054	
L-alanyl-L-glutamine	Gibco	35050-038	
Neurobasal medium	Gibco	21103-049	
Cytosine $\beta$ -D-arabinofuranoside	Sigma-Aldrich	C1768-100MG	
Straight fine-tipped forceps	Fine Science Tools	11251	
Fine-tipped spring scissors	Fine Science Tools	91500-09	