

Materials List for:

Recording and Modulation of Epileptiform Activity in Rodent Brain Slices Coupled to Microelectrode Arrays

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Materials

Name	Company	Catalog Number	Comments
Poly-D-Lysine	Sigma-Aldrich	P7886	Needed for MEA coating
NaCl	Sigma-Aldrich	S9888	Chemical
KCl	Sigma-Aldrich	P9541	Chemical
KH ₂ PO ₄	Sigma-Aldrich	795488	Chemical
CaCl ₂ *2 H ₂ O	Sigma-Aldrich	C3306	Chemical
D-Glucose	Sigma-Aldrich	RDD016	Chemical
NaHCO ₃	Sigma-Aldrich	S5761	Chemical
MgCl ₂ *6 H ₂ O	Sigma-Aldrich	M2670	Chemical
MgSO ₄ *6 H ₂ O	Sigma-Aldrich	M5921	Chemical
Sucrose	Sigma-Aldrich	RDD023	Chemical
Pyruvic Acid, 98%	Sigma-Aldrich	107360	Chemical
4-aminopyridine	Sigma-Aldrich	A78403	Convulsant drug
STG-2004	Multichannel System	STG4004-1.6mA	4-channel stimulus generator with voltage (±8 V) and current output (±1.6 mA)
MEA1060	Multichannel System	N/A	MEA amplifier
planar MEA	Multichannel System	60MEA500/30iR-Ti w/o ring	Must be without ring to allow using the custom recording chamber
McRack	Multichannel System		Recording software
McStimulus II	Multichannel System		STG4004 control software
TC02	Multichannel System	TC02	2-channel thermostat
PH01	Multichannel System	PH01	Heating perfusion canula
MPH	Multichannel System	MPH	Magnetic holder for PH01 and suction needle
Elastostil E43	Wacker	E43	Elastomeric sealant used to mount the custom recording chamber onto the MEA
MEA Custom Chamber	Crisel Instrument	SKE-chamber MEA	Custom recording chamber
Ag/AgCl electrode, pellet, 1.0 mm	Crisel Instrument	64-1309	Reference electrode for the custom recording chamber
Tergazyme	Sigma-Aldrich	Z273287-1EA	Enzymatic cleaner
MATLAB	The Mathworks		Programming environment for electrodemapping
VT1000S	Leica Biosystems	VT1000S	Vibratome
	Warner Instruments	64-1309	Ag-AgCl Electrode Pellet 1.0 mm (E205). Reference electrode.