

Materials List for:

Using Enzyme-based Biosensors to Measure Tonic and Phasic Glutamate in Alzheimer's Mouse Models

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Materials

Name	Company	Catalog Number	Comments
FAST-16mkIII-8 channel	Quanteon	16mkIII	
Microelectrode arrays	CenMet	W4 or 8-TRK	
Bovine Serum Albumin (BSA)	Sigma-Aldrich	A-3059	10 g (expires after 1 month)
Glutaraldehyde	Sigma-Aldrich	G-6257	100 mL (expires after 6 months)
Glutamate Oxidase	US Biological or Sigma Aldrich	G4001-01 or 100646	50 UI (expires after 6 months)
Hamilton Syringes	Hamilton	#80383	2 syringes
Methanol	BDH	UN1230	4 L
m-Phenylenediamine dihydrochloride (mPD)	ACROS Organics	1330560250	25 g
Reference Electrodes (RE-5B)	BAS	MF-2079	3 electrodes
Battery-powered Magnetic stir plate	Cole-parmer	EW-04804-01	Can purchase from different supplier
Glutamate	Sigma-Aldrich	G-1626	100 g
Ascorbic Acid	TCI	50-81-7	500 g
Dopamine Hydrochloride	Alfa Aesar	62-31-7	5 g
Perchloric acid	VWR	UN2920	500 mL
Postassium chloride	VWR	7447-40-7	1 kg
Sodium chloride	VWR	7647-40-7	1 kg
Calcium Chloride	MP	153502	100 g
Sodium Hydroxide	BDH	1310732	500 g
Glass pressure ejection pipettes	CenMet		
Sticky wax	Kerrlab	625	Can purchase from different supplier
Microsyringe	World Precision Instruments	MF28G-5	
Modeling clay	WalMart		Can purchase from different supplier
Picospritzer III	Parker		
Silver wire	AM systems	#786500	
Hydrochloric acid	BDH	7647010	2.5 L
Platinum wire	AM Systems	778000	
Solder gun	Lowe's or Home Depot		Can purchase from different supplier
Multimeter	WalMart		Can purchase from different supplier

PhysioSuite	Kent Scientific		Can purchase from different supplier
SomnoSuite	Kent Scientific		Can purchase from different supplier
Stereotaxic device	Stoelting		Can purchase from different supplier
Digital Lab Standard	Stoelting		Can purchase from different supplier
Meiji EMZ microscope	Meiji	EMZ-5	
Drill	Dremel	Micro	
Metricide	Metrex	102800	
Scalpel	VWR		Can purchase from different supplier
Surgery scissors	VWR		Can purchase from different supplier
Sterile cotton swabs	Puritan	25806	Can purchase from different supplier
Eye ointment	Puralube Vet Ointment		Obtain from the vet
Iodine swabs	VWR	S48050	Can purchase from different supplier
Alcohol swabs	Local drug store		Can purchase from different supplier
Sterile surgery drape	Dynarex	4410	Can purchase from different supplier
Sterile saline	Teknova	S5815	Can make own solution using filters
Hydrogen Peroxide (3%)	Local drug store		Can purchase from different supplier
Heating Pad	WalMart		Can purchase from different supplier