

Materials List for:

Site Directed Spin Labeling and EPR Spectroscopic Studies of Pentameric Ligand-Gated Ion Channels

Sandip Basak¹, Soumili Chatterjee¹, Sudha Chakrapani^{1,2}

¹Department of Physiology and Biophysics, Case Western Reserve University

²School of Medicine, Case Western Reserve University

Correspondence to: Sudha Chakrapani at sxc584@case.edu

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Materials

Name	Company	Catalog Number	Comments
Site-Directed Mutagenesis and Cys mutations			
10x PfuUltra HF reaction buffer	Agilent Technologies	600380-52	
dNTPS	New England BioLabs Inc [†]	N0447L	10 mM each dNTP
pfu Ultra DNA polymerase	Agilent Technologies	600380-51	2.5 U/ul
DPNI	New England BioLabs Inc [†]	R0176S	20,000 U/ml
XL10 GOLD	Agilent Technologies	200314	
SOC media	New England BioLabs Inc [†]	B9020S	
Kanamycin	Fisher Scientific	BP905	
LB media	Invitrogen	127957084	
Miniprep kit	QIAGEN	27106	
C43 competent cells	Lucigen	60446	
Expression and Purification			
Glucose	Fisher Scientific	D16	
Tryptone	Fisher Bioreagents	BP1421-500	
Yeast extract	Amresco	J850	
Glycerol	Fisher Bioreagents	BP229	
K ₂ HPO ₄	Amresco	0705	
K ₂ HPO ₄	Amresco	0781	
IPTG (isopropyl-thio-β-galactoside)	Gold Biotechnology	I2481C25	
Trizma Base	Sigma Life Science	T1503	
NaCl	Sigma-Aldrich	S7653	
DNase I	Sigma Life Science	DN25	
PMSF	Amresco	M145	
Leupeptine	Amresco	J580	
Pepstatin	Amresco	J583	
DDM (n-Docecyl-β-D-Maltopyranoside)	Anatrace	D310S	
Amylose resin	New England BioLabs Inc [†]	E8021L	
TCEP	Amresco	K831	
EDTA	Fisher Scientific	BP118	
Maltose	Acros Organics	329915000	
Superdex 200 GL	GE Healthcare	17-5175-01	

Empty polypropylene Chromatography column	BioRad	731-1550	
Site-Directed Spin Labeling			
MTSL (1-oxy-2,2,5,5-tetramethyl-3-pyrroline-3-methyl) Methanethiosulfonate	Toronto Reaserch chemicals Inc	O873900	
(1-acetoxy-2,2,5,5-tetramethyl-Δ3-pyrroline-3-methyl) methanethiosulfonate	Toronto Reaserch chemicals Inc	A167900	
DMSO	J.T. Baker	9224-01	
Reconstitution			
Asolectin lipid	Avanti polar lipids Inc	541602C	
Biobeads (Polystyrine beads)	Bio Rad	152-3920	
Methanol	Fisher chemicals	A413	
FRET			
Fluorescein-maleimide	ThermoFisher Scientific	F-150	
Tetramethylrhodamine-maleimide	ThermoFisher Scientific	T-6027	
POPC	Avanti polar lipids Inc	850457C	
POPG	Avanti polar lipids Inc	840457C	
<i>E. coli</i> polar lipid extract	Avanti polar lipids Inc	100600C	
HEPES	Sigma Life Science	H3375	
EPR measurement			
TPX plastic capillaries	Bruker	ER221	
EDDA (Ethylenediamine-N, N'-diacetic acid)	Aldrich	158186	
Ni(OH) ₂	Aldrich	283622	