

Materials List for:

Functional Reconstitution and Channel Activity Measurements of Purified Wildtype and Mutant CFTR Protein

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Materials

Name	Company	Catalog Number	Comments
fos-choline 14 detergent	Anatrace Affymetrix (www.anatrace.affymetrix.com)	F312	Affymetrix: Anatrace Products; CAS# :77733-28-9
cComplete EDTA-free protease inhibitor cocktail tablets	Roche (www.roche-applied-science.com)	04 693 132 001	EDTA-free Protease inhibitor cocktail tablets (1 in 50 ml or mini: 1 in 10 ml) (Roche Diagnostics GmbH; Ref: 11873 580 001)
cComplete ULTRA Tablets, Mini, EDTA-free, EASYpack	Roche (www.roche-applied-science.com)	05 892 791 001	
Ni-NTA Agarose	Qaigen GmbH	1018240	
Fisherbrand Screening columns	Fisher Healthcare	11-387-50	
Amicon Ultra Centrifugal filters, Ultracel-100K	Millipore (www.millipore.com)	UFC910008	
cAMP-Dependent Protein Kinase A (PKA), Catalytic Subunit	New England Biolabs (www.neb.com/products/p6000-camp-dependent-protein-kinase-pka-catalytic-subunit)		Peirce PKA is also suitable
PC, Chicken Egg	Avanti Polar Lipids (www.avantilipids.com)	840051C	
POPC	Avanti Polar Lipids (www.avantilipids.com)	850457C	
PS, Porcine Brain	Avanti Polar Lipids (www.avantilipids.com)	840032C	CFTR has been successfully reconstituted into Egg PC, POPC, 2:1 (w/w) Egg PC:POPC, or a mixture of PE:PS:PC:ergosterol, 5:2:2:1 (w/w)
PE, Chicken Egg	Avanti Polar Lipids (www.avantilipids.com)	841118C	
Ergosterol	Sigma (www.sigmaaldrich.com)	45480	
Pierce Detergent removal spin column	Thermo Scientific	87779	1 ml capacity columns
valinomycin	Sigma (www.sigmaaldrich.com)	V-0627	
VX-770 (ivacaftor)	Selleck Chemicals	S1144	
iodide selective microelectrode	Lazar Research Laboratories (www.shelfscientific.com/cgi-bin/tame/newlaz/microiinn.tam)	LIS-146ICM	
Name	Company	Catalog Number	Comments

Clampex 8.1 software	Axon Instruments (www.axon.com)		we use components of the ClampX system with a home made filter to monitor and record the response to our electrode
Alternate Software: ArrowLabb System	Lazar Research Laboratories (www.shelfscientific.com/cgi-bin/tame/newlaz/ionsystems.tam)	LIS-146LICM-XS	Lazar Research sells a meter that can interface with a computer and software to record the probe response. This software should serve a similar function to our setup.
small stir bars	Big Science Inc (www.stirbars.com)	SBM-0502-CMB	choose a stir bar small enough to easily fit into a well of a 96-well plate
Sephadex G50, fine	GE Health Care (www.gelifesciences.com)	17-0042-01	
Sonicator	Laboratory Supplies Co, Inc.	G112SP1G	Bath sonicators from other manufacturers should also be suitable