

High-Throughput Expression and Purification of Human Solute Carriers for Structural and Biochemical Studies

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Materials

Name	Company	Catalog Number	Comments
3C protease	Produced in-house		
50 or 100 kDa cut-off centrifugal concentrators	Sartorius	VS0242	
5-Cyclohexyl-1-Pentyl-β-D-Maltoside	Anatrace	C325	CYMAL-5
96-well bacmid purification kit	Millipore	LSKP09604	Montage Plasmid Miniprep
96-well block (2 mL)	Greiner Bio-One	780271	
Adhesive plastic seals	Qiagen	19570	Tape Pads
Agarose size exclusion chromatography column	Cytiva	29091596	Superose 6 Increase 10/300 GL
Benzonase DNase	Produced in-house		
BisTris	Sigma Aldrich	B9754	
Cholesteryl Hemisuccinate Tris salt	Anatrace	CH210	CHS
Cobalt metal affinity resin	Takara Bio	635653	TALON Metal Affinity Resin
D(+)-Biotin	Sigma Aldrich	851209	
Dextran-agarose size exclusion chromatography column	Cytiva	28990944	Superdex 200 Increase 10/300 GL
Digitonin	Apollo Scientific	BID3301	
Dounce tissue grinder (40 mL)	DWK Life Sciences	357546	
EDTA-free protease inhibitor cocktail	Sigma Aldrich	4693132001	cComplete, EDTA-free Protease Inhibitor Cocktail
Fetal Bovine Serum	Thermo Fisher	10500064	
Fos-Choline-12	Anatrace	F308S	FS-12
Glycerol	Sigma Aldrich	G5516	

Glyco-diosgenin	Anatrace	GDN101	GDN
Gravity flow columns	Cole-Parmer	WZ-06479-25	
HEK293 medium	Thermo Fisher	12338018	FreeStyle 293 medium
HEPES	Apollo Scientific	BI8181	
Hydrophilic, neutral silica UHPLC column	Sepax	231300-4615	Unix-C SEC-300 4.6 x 150
Imidazole	Sigma Aldrich	56750	
Insect transfection reagent	Sigma Aldrich	71259	Reagent
Lauryl Maltose Neopentyl Glycol	Anatrace	NG310	LMNG
Magnesium Chloride Hexahydrate	Sigma Aldrich	M2670	
Micro-expression shaker	Glas-Col	107A DPMINC24CE	
NaCl	Sigma Aldrich	S9888	
n-Decyl- β -D-Maltoside	Anatrace	D322	DM
n-Dodecyl-b-D-Maltopyranoside	Anatrace	D310	DDM
n-Dodecyl-N,N-Dimethylamine-N-Oxide	Anatrace	D360	LDAO
n-Nonyl- β -D-Glucopyranoside	Anatrace	N324S	NG
n-Octyl-d17- β -D-Glucopyranoside	Anatrace	O311D	OGNG
Octaethylene Glycol Monododecyl Ether	Anatrace	O330	C12E8
Octyl Glucose Neopentyl Glycol	Anatrace	NG311	OGNG
Phosphate Buffered Saline	Sigma Aldrich	D8537	DPBS
Polyoxyethylene(10)dodecyl Ether	Anatrace	AP1210	C12E10
Polyoxyethylene(9)dodecyl Ether	Anatrace	AP0129	C12E9
Porous seal for tissue culture plates	VWR	60941-084	Rayon Films for Biological Cultures
Proteinase K	New England Biolabs	P8107S	
Recombination enzyme mix	Thermo Fisher	11791020	Gateway LR Clonase II
Serum-free insect media	Gibco	10902088	Sf-900 II serum-free media
Sodium Butyrate	Sigma Aldrich	303410	
Sonicator 24-head probe	Sonics	630-0579	
Sonicator power unit	Sonics	VCX 750	
Strep-Tactin resin	IBA Life Sciences	2-5030-025	Strep-TactinXT 4Flow high- capacity resin
Sucrose	Sigma Aldrich	S7903	
Sucrose Monododecanoate	Anatrace	S350	DDS
Suspension-adapted HEK293 cells	Thermo Fisher	A14527	Expi293F
Transfection reagent	Sigma Aldrich	70967	GeneJuice Transfection Reagent