

Materials List for:

# Absolute Quantification of Cell-Free Protein Synthesis Metabolism by Reversed-Phase Liquid Chromatography-Mass Spectrometry

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## Materials

Name	Company	Catalog Number	Comments
12C Aniline	Sigma-Aldrich	242284	Aniline 12C
13C labeled aniline	Sigma-Aldrich	485797	Aniline 13C6
3-Phosphoglyceric acid	Sigma-Aldrich	P8877	3PG
Acetic Acid	FisherScientific	AC222140010	ACE
Acetonitrile, LCMS	JT BAKER	9829-03	ACN
Acetyl-coenzyme A	Sigma-Aldrich	A2056	ACA
Acquity UPLC BEH C18 1.7 μM, 2.1 x 150 mm Column	Waters	186002353	Column
Adenosine diphosphate	Sigma-Aldrich	A2754	ADP
Adenosine monophosphate	Sigma-Aldrich	A1752	AMP
Adenosine triphosphate	Sigma-Aldrich	A2383	ATP
Alpha-ketoglutarate	Sigma-Aldrich	K1128	aKG
Citrate	Sigma-Aldrich	251275	CIT
Cytidine diphosphate	Sigma-Aldrich	C9755	CDP
Cytidine monophosphate	Sigma-Aldrich	C1006	CMP
Cytidine triphosphate	Sigma-Aldrich	C9274	CTP
D-glyceraldehyde 3-phosphate	Sigma-Aldrich	39705	GAP
Erythrose 4-phosphate	Sigma-Aldrich	E0377	E4P
Ethanol	Sigma-Aldrich	EX0276	EtOH
Fisher Scientific accuSpin Micro 17 Centrifuge	FisherScientific		Centrifuge
Flavin adenine dinucleotide	Sigma-Aldrich	F6625	FAD
Fructose 1,6-bisphosphate	Sigma-Aldrich	F6803	F16P
Fructose 6-phosphate	Sigma-Aldrich	F3627	F6P
Fumarate	Sigma-Aldrich	F8509	FUM
Gluconate 6-phosphate	Sigma-Aldrich	P7877	6PG
Glucose	Sigma-Aldrich	G8270	GLC
Glucose 6-phosphate	Sigma-Aldrich	G7879	G6P
Glycerol 3-phosphate	Sigma-Aldrich	G7886	Gly3P
Guanosine diphosphate	Sigma-Aldrich	G7127	GDP
Guanosine monophosphate	Sigma-Aldrich	G8377	GMP
Guanosine triphosphate	Sigma-Aldrich	G8877	GTP
Hydrochloric acid	Sigma-Aldrich	258148	HCl
Isocitrate	Sigma-Aldrich	I1252	ICIT

Lactate	Sigma-Aldrich	L1750	LAC
Malate	Sigma-Aldrich	02288	MAL
myTXTL - Sigma 70 Master Mix Kit	ArborBiosciences	507024	Cell-free protein synthesis
N-(3-dimethylaminopropyl)-N'-ethylcarbodiimide hydrochloride	Sigma-Aldrich	03449	EDC
Nicotinamide adenine dinucleotide	Sigma-Aldrich	43410	NAD
Nicotinamide adenine dinucleotide phosphate	Sigma-Aldrich	N5755	NADP
Nicotinamide adenine dinucleotide phosphate reduced	Sigma-Aldrich	481973	NADPH
Nicotinamide adenine dinucleotide reduced	Sigma-Aldrich	N8129	NADH
Oxalacetate	Sigma-Aldrich	O4126	OAA
Phosphoenolpyruvate	Sigma-Aldrich	P0564	PEP
Pyruvate	Sigma-Aldrich	P5280	PYR
Ribose 5-phosphate	Sigma-Aldrich	R7750	R5P
Ribulose 5-phosphate	CarboSynth	MR45852	RL5P
Sedoheptulose 7-phosphate	CarboSynth	MS07457	S7P
Succinate	Sigma-Aldrich	S3674	SUCC
Tributylamine	Sigma-Aldrich	90780	TBA
Triethylamine	FisherScientific	O4884	TEA
ultrapure water	FisherScientific	10977-015	water
Uridine diphosphate	Sigma-Aldrich	U4125	UDP
Uridine monophosphate	Sigma-Aldrich	U6375	UMP
Uridine triphosphate	Sigma-Aldrich	U6625	UTP
VWR Heavy Duty Vortex	VWR		Vortex
Water, LCMS	JT BAKER	9831-03	WATER
Waters Acquity H UPLC Class Quaternary Solvent Manager	Waters		LCMS
Waters Acquity H UPLC Class Sample Manager FTN	Waters		LCMS
Waters Acquity Qda detector	Waters		LCMS
Waters Empower 3	Waters		Software
Waters LCMS Total Recovery Vial	Waters	186000384c	LCMS Vial