

Materials List for:

# Experimental Approaches to Study Mitochondrial Localization and Function of a Nuclear Cell Cycle Kinase, Cdk1

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## Materials

Name	Company	Catalog Number	Comments
<sup>32</sup> P ATP	PerkinElmer	BLU002001MC	
Anti-mouse secondary antibody	Invitrogen	A-11003	Alexa-546 conjugated
Anti-rabbit secondary antibody	Invitrogen	A11029	Alexa-488 conjugated
ATP	Research Organics	1166A	For in vitro kinase assay
Cdk1 antibody	Cell Signaling Technology	9112	
Cdk1 kinase buffer	New England Biolabs	P6020S	
Click-iT EdU Alexa Fluor 488 Imaging Kit	Life Technologies	C10337	For cell cycle analysis with EdU labeling
COX IV antibody	Cell Signaling Technology	4844S	For mitochondrial immunostaining
Cyclin B1 antibody	Santa Cruz Biotech	sc-752	
CyclinB1/Cdk1 enzyme complex	New England Biolabs	P6020S	Avoid freeze/thaw
CyDye DIGE Fluor Labeling Kit	GE Healthcare Life Sciences	25-8009-83	
DIGE Gel and DIGE Buffer Kit	GE Healthcare Life Sciences	28-9480-26 AA	
Dimethylformamide	Sigma Aldrich	319937	DMF
Dithiothreitol	Bio-Rad	161-0611	DTT
dNTP	EMD Millipore	71004	For site-directed mutagenesis
Dpn I enzyme	Stratagene	200519-53	For site-directed mutagenesis
Dry Strip cover fluid	GE Healthcare Life Sciences	17-1335-01	Used as mineral oil
EDTA	J.T. Baker	4040-03	
EGTA	Acros Organics	409910250	
Eppendorf Vacufuge Concentrator	Fisher Scientific	07-748-13	Used as vacuum centrifuge concentrator
Fluoromount G	Southern Biotech	0100-01	Anti-fade mounting solution
Fortessa Flow Cytometer	BD Biosciences	649908	For cell cycle analysis with EdU labeling
Histone H1	Calbiochem	382150	For in vitro kinase assay
QIAquick Gel Extraction Kit	Qiagen	28704	For purifying DNA fragments from agarose gels
Immobiline DryStrip Gels	GE Healthcare Life Sciences	18-1016-61	IEF (isoelectric focusing) strips
Immobilized Glutathione	Thermo Scientific	15160	Glutathione-agarose beads
Iodoacetamide	Sigma Aldrich	I1149	IAA
IPGphor 3 Isoelectric Focusing Unit	GE Healthcare Life Sciences	11-0033-64	IPGphor strip holders
Isopropyl-b-D-thio-galactopyranoside	RPI Corp	156000-5.0	IPTG
Leupeptin	Sigma Aldrich	L9783	For cell lysis buffer

Lipofectamine 2000	Life Technologies	11668027	Transfection reagent
Lysine	Sigma Aldrich	L5501	For CyDye labeling
Lysozyme	EMD Chemicals	5960	
Mitoctracker Red/Green	Invitrogen	M7512/M7514	Mitochondrial fluorescent dyes
MOPS	EMD Chemicals	6310	
pEGFP-N1	Clontech	6085-1	GFP-expressing vector
Pfu	Stratagene	600-255-52	
pGEX-5X-1	GE Healthcare Life Sciences	28-9545-53	GST-expressing vector
Phenylmethylsulfonyl fluoride	Shelton Scientific	IB01090	PMSF
Phosphate buffered saline	Life Technologies	14040	PBS
Spectra/Por 4 dialysis tubing	Spectrum Labs	132700	as porous membrane tubing for dialysis
Pro-Q Diamond Phosphoprotein Gel Stain	Life Technologies	P-33300	For staining phosphoproteins on 2D gels
Proteinase inhibitor cocktail	Calbiochem	539134	For cell lysis buffer
QuikChange site-directed mutagenesis kit	Stratagene	200519-5	
QIAprep Spin Miniprep Kit	Qiagen	27104	MiniPrep Plasmid Isolation Kit
RO-3306	Alexis Biochemicals	270-463-M001	Cdk1 inhibitor
Rotenone	MP Biomedicals	150154	Complex I inhibitor
Sodium carbonate	Fisher Scientific	S93359	
Sodium chloride	EMD Chemicals	SX0420-5	For cell lysis buffer
Sodium orthovanadate	MP Biomedicals	159664	For cell lysis buffer
Sodium pyrophosphate decahydrate	Alfa Aesar	33385	For cell lysis buffer
Sodium $\beta$ -glycerophosphate	Alfa Aesar	L03425	For cell lysis buffer
SpectraMax M2e	Molecular Devices	M2E	Microplate reader
Sucrose	Fisher Scientific	57-50-1	
Tissue Grinder pestle	Kimble Chase	885301-0007	For mitochondria isolation
Tissue Grinder tube	Kimble Chase	885303-0007	For mitochondria isolation
Trichloroacetic acid solution	Sigma Aldrich	T0699	TCA
Tris	MP Biomedicals	103133	
Triton-x-100	Teknova	T1105	
Trypsin	Calbiochem	650211	
Typhoon Imager	GE Healthcare Life Sciences	28-9558-09	Laser gel scanner fro 2D-DIGE
Ubiquinone	Sigma Aldrich	C7956	