

Materials List for:

Genome-Wide Quantification of Translation in Budding Yeast by Ribosome Profiling

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Materials

Name	Company	Catalog Number	Comments
0.45 µM membrane filters	Millipore	HVLP04700	
0.5 M EDTA	Invitrogen	AM9261	
0.5 mL centrifugal filters (100 kDa MWCO)	Millipore	UFC510024	
1 M Tris-HCl, pH 7.0	Invitrogen	AM9850G	
1 M Tris-HCl, pH 7.5 (pH 8.0 at 4°C)	Invitrogen	15567-027	
10X TBE buffer	Invitrogen	AM9863	
10% TBE-urea gel	Invitrogen	EC6875BOX	
15% TBE-urea gel	Invitrogen	EC6885BOX	
2 M MgCl ₂	RPI	M24500-10.0	
2X TBE-urea sample buffer	Invitrogen	LC6876	
3M NaOAc, pH 5.5	Invitrogen	AM9740	
5' Deadenylase (10 U/µL)	Epicentre	DA11101K	
5X Nucleic acid sample loading buffer	Bio-Rad	161-0767	
8% TBE gel	Invitrogen	EC6215BOX	
Acid-Phenol:Chloroform, pH 4.5 (with IAA, 125:24:1)	Invitrogen	AM9722	
Blue light transilluminator	Clare Chemical Research	DR-46B	
Chrome-steel beads, 3.2 mm	BioSpec Products	11079132c	
Cryogrinder	Biospec product	3110BX	
Cycloheximide	RPI	C81040-5.0	
Data Acquisition System	DATAQ Instruments	DI-245	
Deoxynucleotide (dNTP) solution mix (10 mM)	NEB	N0447L	
Glycogen	Invitrogen	AM9510	
Gradient fractionation system	Brandel	BR-184X	
High-fidelity DNA polymerase (2,000 U/mL)	NEB	M0530S	Supplied with 5X Phusion HF Buffer
Next-generation sequencing library quantification kit	Kapa Biosystems	KK4824	
Nucleic acid gel stain	Invitrogen	S11494	
Optima XE-90 ultracentrifuge	Beckman Coulter	A94471	
Poly(A) mRNA isolation kit	Invitrogen	61011	
Rec J exonuclease (10 U/µL)	Epicentre	RJ411250	

Reverse transcriptase (200 U/ μ L)	Invitrogen	18080093	Supplied with 5X first-strand buffer and 0.1 M DTT
RNA fragmentation buffer	NEB	E6186A	
RNase I (100 U/ μ L)	Invitrogen	AM2295	
RNase inhibitor (20 U/ μ L)	Invitrogen	AM2696	
Silicone rubber caps	BioSpec Products	2008	
ssDNA ligase (100 U/ μ L)	Epicentre	CL9021K	Supplied with 10X CircLigase II buffer and 50 mM $MnCl_2$
Stainless steel microvials, 1.8 mL	BioSpec Products	2007	
Sucrose	RPI	S24060-5000.0	
SW-41 Ti rotor	Beckman Coulter	331362	
Syringe pump	New Era Pump Systems	NE-300	
T4 polynucleotide kinase (10,000 U/mL)	NEB	M0201S	Supplied with 10X T4 polynucleotide kinase buffer
T4 RNA ligase 2 truncated KQ (200,000 U/mL)	NEB	M0373S	Supplied with 10X T4 RNA ligase buffer and 50% PEG8000
Thermal cycler	Bio-Rad	1851148	
Thinwall polyallomer tubes, 13.2 mL	Beckman Coulter	331372	
Triton X-100	Sigma Aldrich	X100-100ML	
UV monitor	Bio-Rad	7318160	
Saccharomyces cerevisiae strain BY4741	Open Biosystems	YSC1048	