

Materials List for:

Studying Ribonucleotide Incorporation: Strand-specific Detection of Ribonucleotides in the Yeast Genome and Measuring Ribonucleotide-induced Mutagenesis

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Materials

Name	Company	Catalog Number	Comments
YPD media			20 g dextrose, 20 g peptone, 10g yeast extract, in deionized H ₂ O up to 1 L, add 20 g Bacto agar for solid media, autoclave.
COM plates			1.3 g SC dropout mix, 1.7 g yeast nitrogen base without amino acids or (NH ₄) ₂ SO ₄ , 5 g (NH ₄) ₂ SO ₄ , 20 g dextrose, 20 g Bacto agar deionized H ₂ O up to 1 L. Adjust pH to 5.8. Autoclave and 30 – 35 ml per plate.
CAN plates			1.3 g SC-Ura dropout powder, 1.7 g yeast nitrogen base without amino acids or (NH ₄) ₂ SO ₄ , 5 g (NH ₄) ₂ SO ₄ , 20 g dextrose, 20 g Bacto agar, 25 mg uracil and H ₂ O up to 1 L. Autoclave for 15 mins at 121 °C and cool down to 56 °C. Add 6 mL of filter-sterilized 1% canavanine sulfate solution.
5-FOA plates			1.3 g SC-Ura dropout powder, 1.7 g yeast nitrogen base without amino acids or (NH ₄) ₂ SO ₄ , 5 g (NH ₄) ₂ SO ₄ , 20 g dextrose, 20 g Bacto agar, 25 mg uracil and H ₂ O up to 800 mL. Autoclave for 15 mins at 121 °C and cool down to 60 °C. Add 200 mL of filter-sterilized 0.5% 5-FOA solution.
L-Canavanine sulfate	US Biological	C1050	
5-FOA	US Biological	F5050	
20 mL glass culture tube			Any brand
Culture rotator in 30 °C incubator			Shaker incubator can be used instead
96 well round bottom plates			Sterile, any brand
3 mm glass beads	Fisher Scientific	11-312A	Autoclave before use
12-channel pipettes			Any brand
Ex Taq DNA Polymerase	TaKaRa	RR001	
Epicentre MasterPure Yeast DNA Purification Kit	Epicenter	MPY80200	
3 M sodium acetate	Sigma-Aldrich	S7899	

100% ethanol			
Qubit 2.0 Fluorometer	Invitrogen	Q32866	Newer model available
dsDNA BR Assay kit	Invitrogen	Q32850	
KOH	Sigma-Aldrich	221473	
EDTA	Sigma-Aldrich	E7889	
Ficoll 400	Dot Scientific Inc.	DSF10400	
Bromocresol green	Eastman	6356	
Xylene cyanol FF	International Technologies Inc.	72120	
NaOH	Sigma-Aldrich	S8045	
1 M Tris-HCl (pH 8.0)	Teknova	T5080	
SYBR Gold Nucleic Acid Gel Stain	Invitrogen	S11494	
UV transilluminator			
Amersham Nylon membrane Hybond-N+	GE Healthcare	RPN303B	
3 MM CHR Chromotography paper	Whatman	3030-392	
NaCl	Caledon	7560-1	
Stratalinker 1800	Stratagene		
QIAquick PCR Purification Kit	Qiagen	28106	
G-25 spin column	GE Healthcare	27-5325-01	
1 M Sodium phosphate buffer (pH 7.2)	Sigma-Aldrich	NaH ₂ PO ₄ (S9638); Na ₂ HPO ₄ (S9390)	
SDS	Sigma-Aldrich	L4522	
BSA	Sigma-Aldrich	A3059	
Formamide	Sigma-Aldrich	47671	
Geiger counter			