

Materials List for:

## A Deep-Sequencing-Assisted, Spontaneous Suppressor Screen in the Fission Yeast *Schizosaccharomyces pombe*

Bahjat F. Marayati<sup>1,2</sup>, James B. Pease<sup>1</sup>, Ke Zhang<sup>1,2</sup>

Correspondence to: Ke Zhang at zhangk@wfu.edu

URL: https://www.jove.com/video/59133

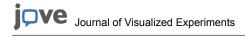
DOI: doi:10.3791/59133

## **Materials**

Name	Company	Catalog Number	Comments
Adenine, Powder	Acros Organics	147441000	Use at 75 mg/L to make liquid and solid rich media (YEA)
Bacteriology Petri Dish	Corning, Falcon	C351029	100×15mm, use to grow strains to single colonies on solid rich media
D-Glucose Anhydrous, Powder	Fisher Chemical	D16-1	Use at 30 g/L to make liquid and solid rich media (YEA)
Difco Agar, Granuated	Becton, Dickinson and Co.	214530	Use at 20 g/L to make solid rich media (YEA)
DNA extraction buffer			2% Triton X-100, 1% SDS, 100 mM NaCl, 10 mM Tris-Cl (pH 8.0), 1mM Na <sub>2</sub> -EDTA
Focused-ultrasonicator	Covaris Inc.	S220	Alternatively, use QSonica Q800R sonicator/DNA and chromatin shearing system
Gen5 Data Collection and Analysis Software	Biotek, Inc.	GEN5SECURE	Or equivalent, must be compatible with the micro-plate reader, use to export data readings from the micro-plate reader
Hydrochloric Acid 1N, Liquid	Fisher Chemical	SA48-4	Use to adjust pH to 5.5 in liquid and solid rich media
Liquid Rich Media (liquid YEA)			30 g/L D-Glucose, 5 g/L Yeast Extract, 75 mg/L Adenine, pH adjusted to 5.5 with 1 M HCl
Microplate Reader, Synergy H1 Hybrid Multi-Mode Reader	Biotek, Inc.	BTH1MG	Or equivalent, must read visible light at 600nm wavelength range
Rich Media agar plates (YEA plates)			30 g/L D-Glucose, 5 g/L Yeast Extract, 75 mg/L Adenine, 20 g/L Agar, pH adjusted to 5.5 with 1 M HCl.
RNase A/T1 mix	Thermo Fisher Scientific	EN0551	Use according to manufacturer recommendation
Sterile Polystyrene Inoculating Loop	Corning, Inc.	OS101	Or equivalent, use to transfer colonies from agar plates to 96-well plate
Sterile workspace and burners			
Tissue Culture Plate, 96-well Optical Flat Bottom with Low Evaporation Lid	Corning, Falcon	C353072	Or equivalent, must have optical flat bottom for micro-plate ready
TruSeq DNA PCR-Free LT/HT Library Prep Kit	Illumina, Inc.	20015962	Use to prepare the whole-genome sequencing library

<sup>&</sup>lt;sup>1</sup>Department of Biology, Wake Forest University

<sup>&</sup>lt;sup>2</sup>Center for Molecular Communication and Signaling, Wake Forest University



Yeast Extract, Powder	Fisher Chemical	Use at 5 g/L to make liquid and solid rich media (YEA)
		Solid Hell Illedia (TEA)