

Materials List for:

High-resolution Imaging and Analysis of Individual Astral Microtubule Dynamics in Budding Yeast

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URL: <https://www.jove.com/video/55610>

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Materials

Name	Company	Catalog Number	Comments
DOB (dropout bases)	Sunrise science	1650	
CSM-Leu	Sunrise science	1005	
Agar	Ameresco	N833	
100 mm polystyrene plates	Fisher Scientific	FB0875713	
ssDNA (Samon Sperm) in sterile DiH ₂ O	Sigma-Aldrich	D7656	resuspend at 10 mg/mL in DiH ₂ O. Store aliquots at -20 °C
Synthetic Complete Media	Sunrise science	1459-100	
Concanavalin A	Sigma-Aldrich	L7647	resuspend at 2 mg/mL in DiH ₂ O. Store aliquots at -20 °C
Microscope slides	Fisher Scientific	12-544-1	
Microscope Coverslips	Fisher Scientific	12-541-B	
Parafilm	Fisher Scientific	13-374-12	paraffin film
VALAP (Equal parts of Vaseline, lanolin and paraffin)			melt at 75 °C before use
forceps	Fisher Scientific	16-100-106	
Poyethylene glycol (PEG) 3350	Sigma-Aldrich	202444	
Name	Company	Catalog Number	Comments
Microscope			
Ti E inverted Perfect Focus microscope	Nikon Instruments	MEA53100	
1.45 NA 100X CFI Plan Apo objective	Nikon Instruments	MRD01905	
Piezo electric stage	Physik Instrumente	P-736	
Spinning disk scanner	Yokogawa	CSU10	
Laser combiner module	Agilent Technologies	MCL400B	
EMCCD camera	Andor Technology	iXon Ultra 897	
Name	Company	Catalog Number	Comments
Software			
NIS Elements software	Nikon Instruments	MQS31100	
Microsoft Excel software	Microsoft		
MATLAB software	MathWorks, Inc		
ImageJ64	NIH		Rasband, W.S., ImageJ, U. S. National Institutes of Health, Bethesda, Maryland, USA, http://imagej.nih.gov/ij/ , 1997-2016.
Bio-Formats Importer plug-in	Open Microscopy Environment		
Name	Company	Catalog Number	Comments

Plasmids			
pUC19-LEU2::GFP-TUB1		pSK1050	reference: Song, S. and Lee, K. S. A novel function of <i>Saccharomyces cerevisiae</i> CDC5 in cytokinesis. <i>J Cell Biol.</i> 152 (3), 451-469 (2001)