

Materials List for:

Super-resolution Imaging of the Cytokinetic Z Ring in Live Bacteria Using Fast 3D-Structured Illumination Microscopy (f3D-SIM)

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Materials

Name	Company	Catalog Number	Comments
Agarose I (Biotechnology grade)	AMRESCO	0710-500G	Used for constructing 2% agarose pads. Use microwave to dissolve agarose in growth media.
N-(3-triethylammoniumpropyl)-4-(6-(4-(diethylamino) phenyl) hexatrienyl) pyridinium dibromide (FM 4-64)	Life Technologies	T-13320	Lipophylic dye used for staining cell membranes.
1.5 ml microtube, graduated Natural	Scientific specialties Inc.	1210-00	Made from Homopolymer polypropylene, used to harvest bacterial cells prior to being placed on agarose pads for visualization.
Luria broth base, Miller	BD	241420	Prepared according to manufacturer's instructions. Add 2% agarose after autoclaving.
BBL Antibiotic assay broth, Antibiotic medium 3	BD	210932	Prepared according to manufacturer's instructions.
Adhesive frame	Thermo-Fisher Scientific	ABGAB-0577	Known as Gene Frame with this company. Used to prepare 2% agarose pads (Dimensions: 15 x 16 mm).
Microscope cover glass	Thermo-Fisher Scientific	111512-9	22 x 22 No. 1 Thickness
35 mm diameter Petri dish with a glass coverslip bottom	World precision instruments	FD35-100	Known as FluoroDish with this company. Dish: Ø35 mm, Glass: Ø 23 mm, Glass thickness: 0.17 mm, non pyrogenic
Chloramphenicol	Sigma-Aldrich	C0378-25G	Make a 10 mg/ml stock in 95% ethanol.
Lincomycin hydrochloride	Sigma	L6004-5MU	Make a 25 mg/ml stock in 50% ethanol.
Erythromycin	Boehringer Mannheim GmbH	12390120-14	Make a 10 mg/ml stock in 95% ethanol.
Combined orbital/linear shaking waterbath	Grant scientific Instruments	OLS-200	Shaking speed used for cultures: 215 rpm
UV visible spectrophotometer	Shimadzu	UV-1601	600 nm wavelength was used for measuring optical density of bacterial cultures.
Centrifuge	Eppendorf	5415R	Pellets of bacterial culture were obtained by spinning down mid exponentially growing cultures at 8,000 rpm for 30 sec.
Isopropyl β-D-1-thiogalactopyranoside (IPTG)	Sigma	15502-10G	Prepare 1 M stock and filter sterilize prior to use.

softWoRx software	Applied Precision Inc/A GE Healthcare Company	version 5.0	
Imaris data analysis software	Bitplane Scientific Software, Bitplane AG	version 7.0.0	Matlab XTensions included
DeltaVision OMX 3D-SIM imaging system fitted with a Blaze module.	Applied Precision Inc/A GE Healthcare Company		Blaze module fitted on OMX V3
Upright fluorescence microscope	Zeiss Axioplan 2		