

Materials List for:

Super-resolution Imaging of the Natural Killer Cell Immunological Synapse on a Glass-supported Planar Lipid Bilayer

Peilin Zheng^{*1,2}, Grant Bertolet^{*1,2,3}, Yuhui Chen^{1,2}, Shengjian Huang^{1,2}, Dongfang Liu^{1,2,3}

¹Center for Human Immunobiology, Texas Children's Hospital

²Department of Pediatrics, Baylor College of Medicine

³Department of Pathology and Immunology, Baylor College of Medicine

*These authors contributed equally

Correspondence to: Dongfang Liu at dongfanl@bcm.edu

URL: <https://www.jove.com/video/52502>

DOI: [doi:10.3791/52502](https://doi.org/10.3791/52502)

Materials

Name	Company	Catalog Number	Comments
18:1 (Δ9-Cis) PC (DOPC) 1,2-dioleoyl-sn-glycero-3-phosphocholine	Avanti	850375C	Liposome preparation
18:1 Biotinyl Cap PE 1,2-dioleoyl-sn-glycero-3-phosphoethanolamine-N-(cap biotinyl) (sodium salt)	Avanti	870273C	Liposome preparation
Argon gas, compressed	Airgas	UN1006	Liposome preparation
A lyophilizer	Labconco	Freezone 7740020	Liposome preparation
Lyophilizer tubes	Labconco	7540200	Liposome preparation
Chromatography Columns	Santa Cruz	sc-205558	Liposome preparation
1 M Tris pH 8.0	Ambion	AM9856	Liposome preparation
5 M NaCl	Ambion	AM9759	Liposome preparation
Octyl-β-D-glucopyranoside	Sigma-Aldrich	O1008	Liposome preparation
Dialysis tubing	Spectrum Labs	132676	Liposome preparation
96-well V-bottom polystyrene plate (untreated)	Corning	3896	antibody density determination
Non-functionalized silica beads	Bangs Laboratories	SS06N	antibody density determination
FACS tubes	Fisher Scientific	14-959-2A	antibody density determination
Quantum™ MESF beads	Bangs Laboratories	Variable	antibody density determination
Casein	Sigma-Aldrich	C0875	Lipid bilayer preparation
HEPES buffered saline + 1% HSA	Homemade		Lipid bilayer preparation
Streptavidin	Life technologies	434301	Lipid bilayer preparation
Fluorescently-labeled biotinylated protein	Homemade		Lipid bilayer preparation
ibidi Sticky-Slide VI 0.4	ibidi	80608	Lipid bilayer preparation
25x75 mm glass coverslip	ibidi	10812	Lipid bilayer preparation
Hydrogen peroxide (30%)	Fisher Scientific	BP2633	Lipid bilayer preparation
Sulfuric acid	Sigma-Aldrich	258105	Lipid bilayer preparation
D-Biotin	Invitrogen	B20656	Lipid bilayer preparation
Lens paper	VWR	54826-001	For imaging
Type F Immersion Oil	Leica	11 513 859	For imaging
A Leica TCS STED microscope	Leica		For imaging