

Materials List for:

Visualizing Protein-DNA Interactions in Live Bacterial Cells Using Photoactivated Single-molecule Tracking

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Materials

Name	Company	Catalog Number	Comments
<i>E. coli</i> strain carrying a chromosomal insertion for a PAmCherry DNA-binding fusion protein			created by Lambda-Red recombination
MEM amino acids	Invitrogen	11130-051	minimal medium supplement
MEM vitamins	Invitrogen	11120-052	minimal medium supplement
Agarose	BioRad	161-3100	certified molecular biology grade
Microscope coverslips No 1.5 thickness	Menzel	BB024060SC	remove background particles by heating slides in furnace at 500 °C for 1 hr
Methyl methanesulfonate (MMS)	Sigma-Aldrich	129925	CAUTION: toxic
PALM setup	home-built		described in Uphoff <i>et al.</i> ⁷
MATLAB	MathWorks		for data analysis and visualization
Localization software	custom-written, available online	http://www.physics.ox.ac.uk/Users/kapanidis/Group/Main.Software.html	MATLAB and C++ software package that can be adapted for localization analysis. Cite Holden <i>et al.</i> ¹³ if used in publication.
Tracking software	available online	http://physics.georgetown.edu/matlab/	MATLAB implementation by Blair and Dufresne. Cite Crocker & Grier ¹² if used in publication.