

Visualizing Diffusional Dynamics of Gold Nanorods on Cell Membrane using Single Nanoparticle Darkfield Microscopy

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URL

jove.com/video/61603

Materials

Name	Company	Catalog Number	Comments
CTAB coated gold nanorods(CTAB-AuNRs)	Nanoseedz	NR-40-650	85 nm * 40 nm
Color CMOS camera	Olympus	DP74	Japan
Coverslips	Citoglas	z10212222C	22*22 mm
Dark-field microscopy	Nikon	80i	upright microscope
Fetal bovine serum (FBS)	Gibco	10099141	
Fiji	National Institutes of Health	2.0.0-rc-69/1.52 p	a distribution of ImageJ
Grooved glass slide	Sail brand	7103	Single concave
Image J	National Institutes of Health	1.52 j	
MATLAB	MathWorks	R2019b	
MATLAB Code			https://github.com/fenggeqd/JOVE-2020
Minimum essential medium (MEM)	Gibco	10-010-CVR	with phenol red
Minimum essential medium (MEM)	Gibco	51200038	no phenol red
Origin	OriginLab	Origin Pro 2018C	
Penicillin-streptomycin	Gibco	15140122	
Plastic cell culture dishes	Falcon	353002	
Plastic cell culture dishes	Falcon	353001	35*10 mm
U87 MG cell	American Type Culture Collection	ATCC HTB-14	a human primary glioblastoma cell line