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Dynamics of a GPCR studied with single-molecule microscopy

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Dynamics of a GPCR studied with single-molecule microscopy

Sandra de Keijzer

Dynamics of a GPCR studied with single-molecule microscopy

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Abbreviations

AC	adenylyl cyclase
cAMP	cyclic adenosine monophosphate
cAR	cAMP receptor
CCD	charge coupled device
cGMP	cyclic guanosine monophosphate
ConA	concanavalin A
CRAC	cytosolic regulator of adenylyl cyclase
DNA	deoxyribonucleic acid
DMPE	1,2-dimyristoyl- <i>sn</i> -glycero-3-phosphoethanolamine
DOPE	1,2-dioleoyl- <i>sn</i> -glycero-3-phosphoethanolamine
ERK	extracellular-signal-regulated kinase
EYFP	enhanced yellow fluorescent protein
FWHM	full-width-at-half-maximum
FRET	fluorescence resonance energy transfer
Gbp	cGMP-binding protein
GC	guanylyl cyclase
GDP	guanosine 5'-diphosphate
GEF	guanine nucleotide exchange factor
GFP	green fluorescent protein
GPCR	G-protein coupled receptor
GTP	guanosine 5'-triphosphate
HEK	human embryonic kidney
LF	low fluorescence
MAPK	mitogen-activated protein kinase
MIHCK	myosin I heavy chain kinase
mRFP	monomeric red fluorescent protein
MSD	mean square displacement
MW	molecular weight
PAK	p21-activated protein kinase
PB	phosphate buffer
PCR	polymerase chain reaction
PDE	phosphodiesterase E
PH	pleckstrin homology
PI3K	phosphatidylinositol 3'-kinase
PLC	phospholipase C

PKA	protein kinase A
PKB	protein kinase B
POPC	1-palmitoyl-- <i>sn</i> -glycero-3-phosphoethanolamine
PtdIns	phosphatidylinositol
PTEN	phosphatidylinositol 3'-phosphatase
SCAR	suppressor of cAR
SNOM	scanning near-field microscopy
SMM	single-molecule microscopy
TIR	total-internal reflection
WASP	Wiskott-Aldrich syndrome protein
WAVE	WASP family Verprolin-homologous protein