PRODUCT NOTE

Tag-lite: the ever-growing non-radioacive binding receptor assay portfolio.

Key features and applications

- Non-radioactive, homogeneous, and filtration-free
- Ready-to-use and toolbox reagents for binding assays
- Does not alter the receptor pharmacology
- Thorough kinetic studies with true Kd and Ki values, association (Kon) and dissociation (Koff) rate constants
- Screening and profiling of biologics and large molecules

Abstract

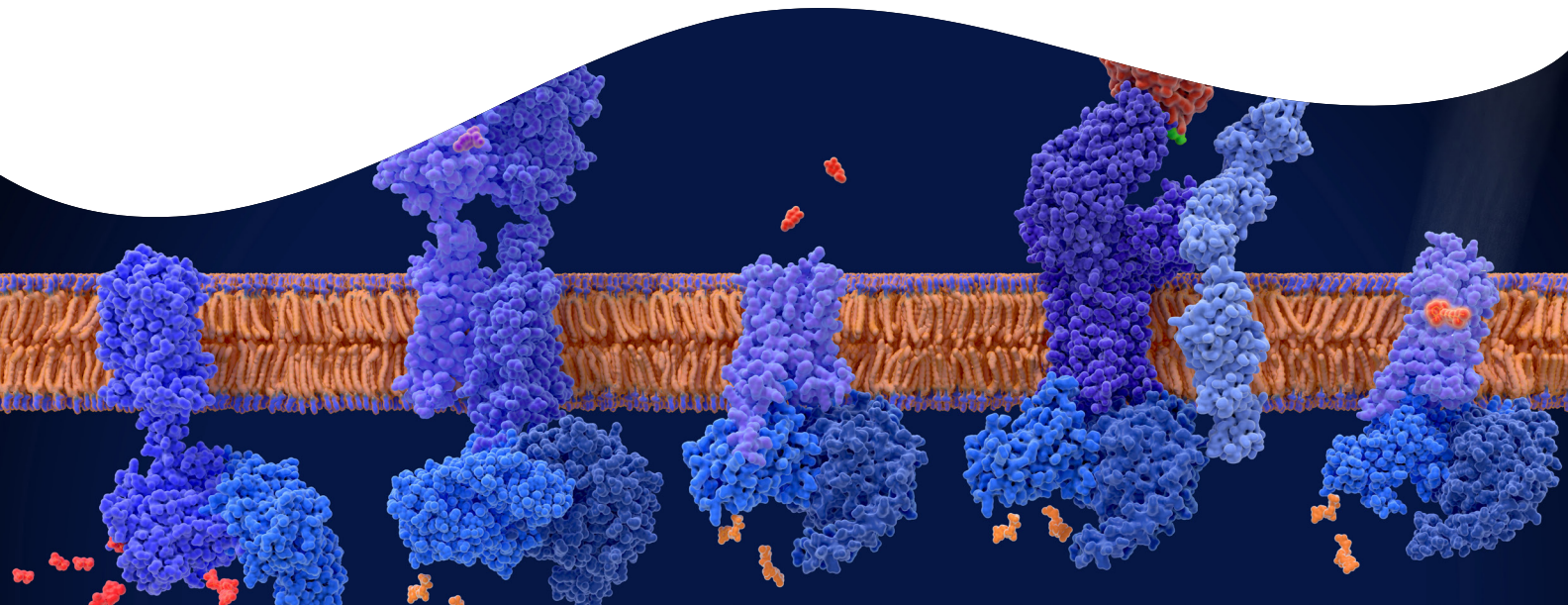
Tag-lite™ is a non-radioactive, cell-based technology that enables the investigation of natural ligands, small molecules or antibodies binding to cell surface receptors. It is especially advantageous for GPCR investigations, for biotherapeutic antibody development, as well as for the study of ligand kinetics.

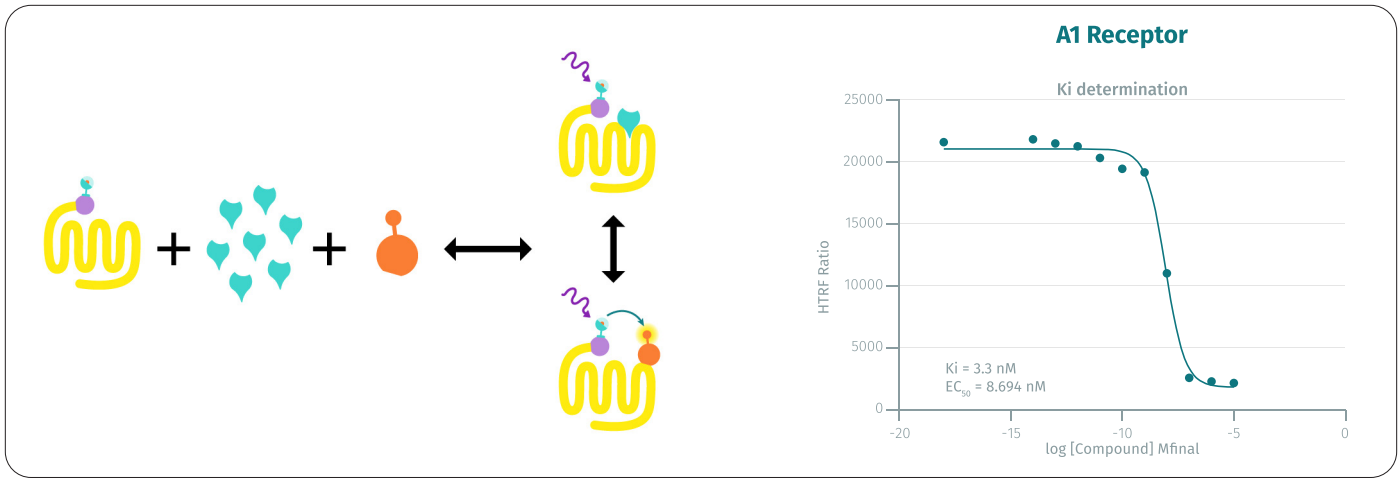
Assay principle

The receptor of interest is expressed as a SNAP-Tag™ fusion protein, which is labeled in situ with a Terbium donor, while the ligand is conjugated with a green or red acceptor.

When donor and acceptor are brought in close proximity by the receptor-ligand interaction and excited with a proper wavelength, the resulting energy transfer triggers a fluorescence signal of intensity proportional to the amount of bound receptors.

Introducing a competing test compound displaces the equilibrium fraction of bound labeled ligand and allows the determination of Ki values for that compound.

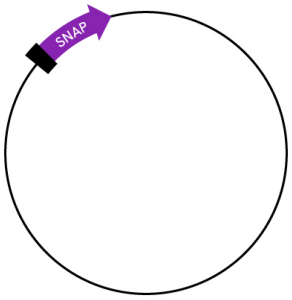




Ready-to-use cells, ligands, and plasmids

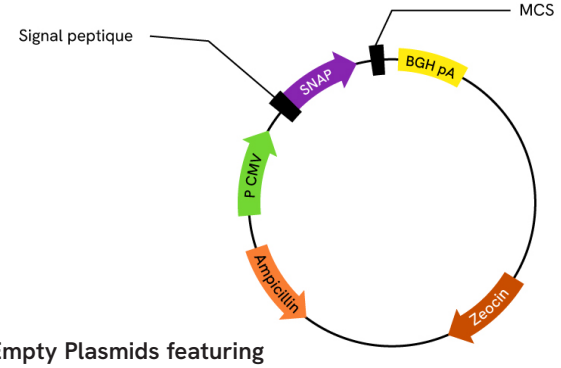
Receptor	Stable cell lines expressing SNAP-GPCR	Frozen and labeled cells	SNAP-GPCR plasmids	Labeled ligands
Adenosine A1 Receptor		C1TT1A1	PSNAPA1	L0067RED
Adenosine A2A Receptor		C1TT1A2A		L0058RED
Adenosine A2B Receptor		C1TT1A2B	PSNAPA2B	L0068RED
Adenosine A3 Receptor		C1TT1A3	PSNAPA3	L0069GRE
Adrenergic β1 Receptor		C1TT1BETA1	PSNAPBETA1	L0023GRE
Adrenergic β2 Receptor	C1SU1BETA2		PSNAPBD2	L0011GRE
Angiotensin AT2 Receptor		C1TT1AT2	PSNAPAT2	L0007RED
Chemokine CXCR4 Receptor	C1SU1CXCR4	C1TT1CXCR4	PSNAPCXCR4	L0012RED
Dopamine D2 Receptor		C1TT1D2	PSNAPD2	L0002RED
GIP Receptor	C1SU1GIPR	C1TT1GIPR	PSNAPGIPR	L0018RED
GLP1 Receptor	C1SU1GLP1	C1TT1GLP1	PSNAPGLP1	L0030RED
δ-Opioid Receptor (OP1)		C1TT1DOP		L0005RED
κ Opioid Receptor (OP2)		C1TT1KOP		
μ-Opioid Receptor (OP3)		C1TT1MOP		
Vasopressin Receptor		C1TT1V2	PSNAPV2	L0063RED
Orexin-2 Receptor (OX2R)		C1TT1OX2	PSNAPOX2	L0025RED
Serotonin 5HT-1A Receptor		C1TT15HT1A	PSNAP5HT1A	L0029RED
Serotonin 5HT-4 Receptor		C1TT15HT4	PSNAPHTR4	L0043RED
Vasopressin V2 Receptor	C1PU1V2	C1TT1V2	PSNAPV2	L0063RED

Empty Plasmids and labeling reagents allow the set-up of Tag-lite assays in cells of choice or for unavailable receptors, or using other tag systems than SNAP-Tag



Empty Plasmids featuring
SNAP-Tag sequence

Description	Reference
pSNAP(+) Plasmid	PSNPPOS
pSNAP(-) Plasmid	PSNPNEG



Empty Plasmids featuring

- Signal peptide
- One of zeocin, neomycin, hygromycin resistance gene
- One of SNAP-Tag, CLIP-Tag or HaloTag sequence

Tag System	Description	Reference
SNAP-Tag	pT8-SNAP (Hygromycin)	PT8SNAPHYG
	pT8-SNAP (Neomycin)	PT8SNAPNEO
	pT8-SNAP (Zeocin)	PT8SNAPZEO
CLIP-Tag	pT8-CLIP (Hygromycin)	PT8CLIPHYG
	pT8-CLIP (Neomycin)	PT8CLIPNEO
	pT8-CLIP (Zeocin)	PT8CLIPZEO
Halo-Tag	pT8-HaloTag (Hygromycin)	PT8HALOHYG
	pT8-HaloTag (Neomycin)	PT8HALONEO
	pT8-HaloTag (Zeocin)	PT8HALOZEO

Labeling reagents for SNAP-Tag, CLIP-Tag, and Halo-Tag. Available for labeling with Terbium, Green dye, Red dye.

Tag System	Description	Reference
SNAP-Tag	SNAP-Lumi4-Tb	SSNPTBD
	SNAP-Green	SSNPGRNE
	SNAP-Red	SSNPREDE
CLIP-Tag	CLIP-Lumi-Tb	SCLPTBE
	CLIP-Green	SCLPGRNE
	CLIP-Red	SCLPREDE
Halo-Tag	HaloTag-Lumi4-Tb	SHALOTBC
	HaloTag-Green	SHALOGRNE
	HaloTag-Red	SHALOREDE

Labeling reagents for SNAP-Tag, CLIP-Tag, and Halo-Tag. Available for labeling with Terbium, Green dye, Red dye.

Description	Reference
Tag-lite BSA Binding Buffer (5X)	LABMED

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