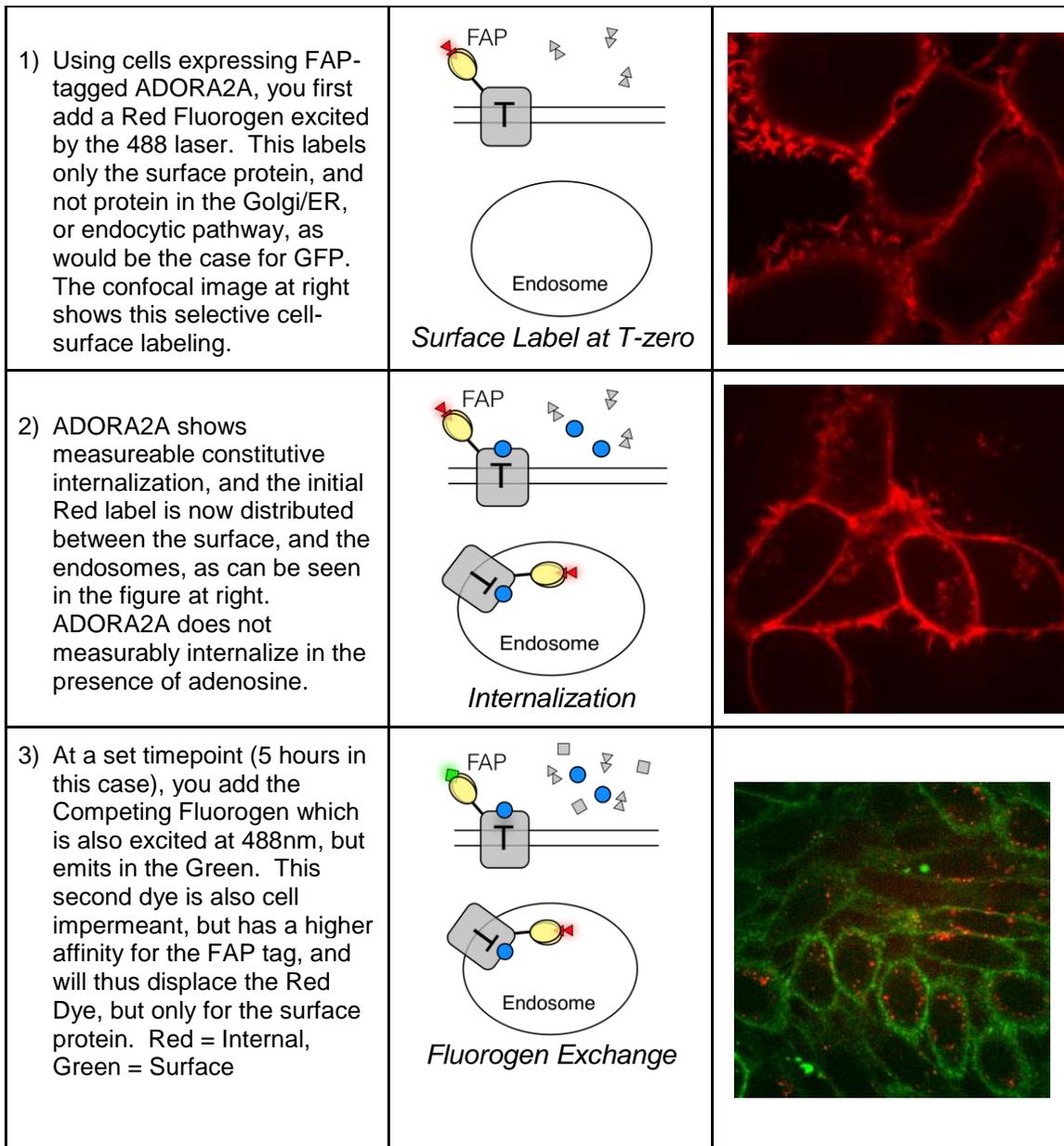


A Two-Color ADORA2A Internalization Assay Using FAP[®]-tags

Fluorogen Activating Peptide (FAP) technology combines a genetic tag (to tag the target GPCR), and a fluorogenic dye that only gives signal when bound to the tag.

Using the FAP and cell-impermeant dyes you can selectively label cell-surface and endocytosed protein pools in the following wash-free protocol.



Legend:  Red Fluorogen (emits only when bound to FAP),  Unbound extracellular Red Fluorogen (non-fluorescent when free in solution),  Green Competing Fluorogen (emits when bound),  Unbound Green Competing Fluorogen (non-fluorescent),  Agonist.



While the confocal images above confirm that the localization of the Green and Red signal to surface and endocytic pools respectively, the signal produced in the assay is homogeneous, so imaging is not required. .

The same assay can be used to measure antagonist response or to see internalized receptor return to the surface (re-sensitization).

The following products were used to obtain the data in this report:

Product Name	Catalog	Amount	# Wells	Price
β GREEN fluorogen	β GREEN-np-010	20 nmol	1,000	\$999
β RED fluorogen	β RED-np-010	20 nmol	1,000	\$1,499
ADORA2A-FAP β 1- CHOK1 Cell Line	OPRM1-FAP β 1- CL1	2 vials	n/a	\$7,450

SpectraGenetics has tagged more than 150 GPCRs and has validated more than 30 GPCR cell lines.

We also offer this assay as a service through our partner Sharp Edge Labs (www.sharpedgelabs.com).