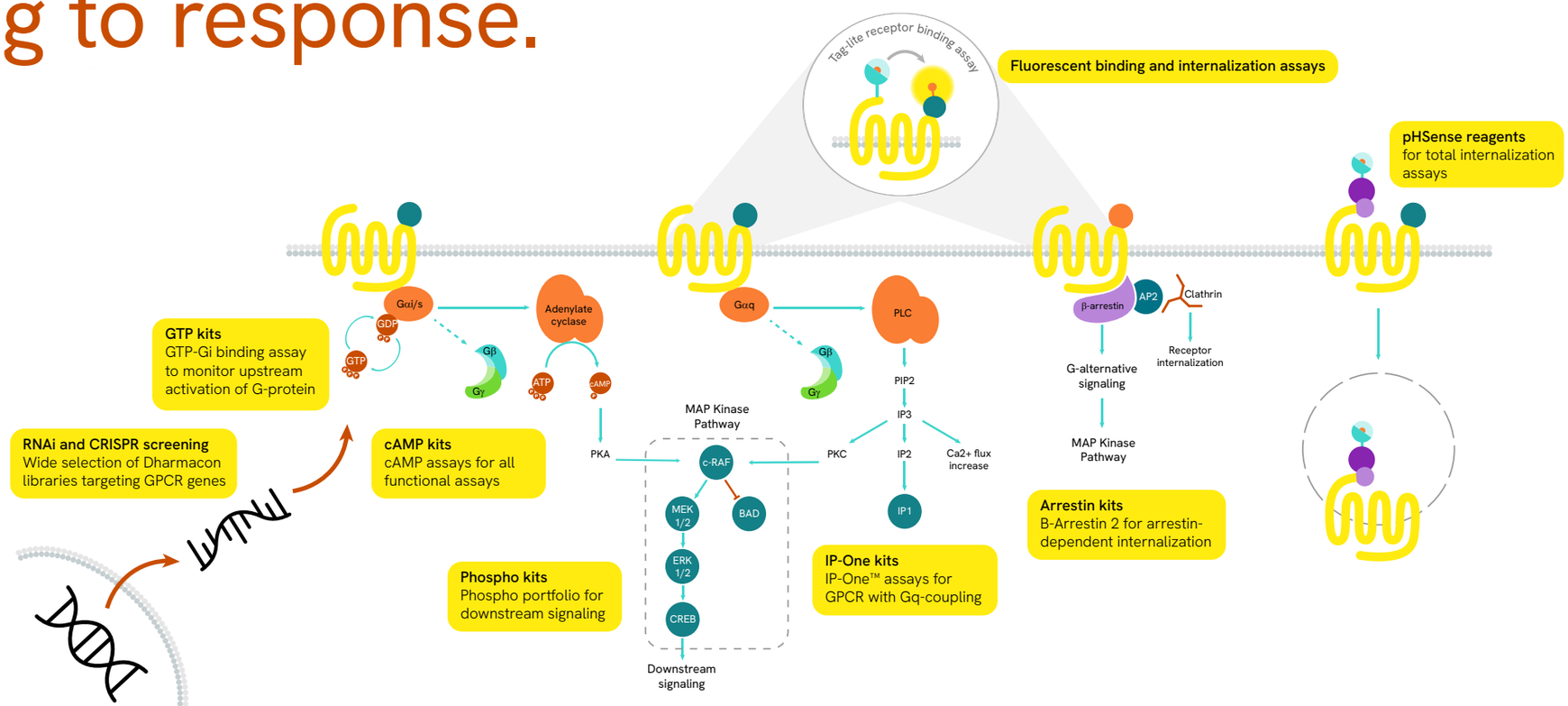
revvity

GPCR research reagents, from binding to response.

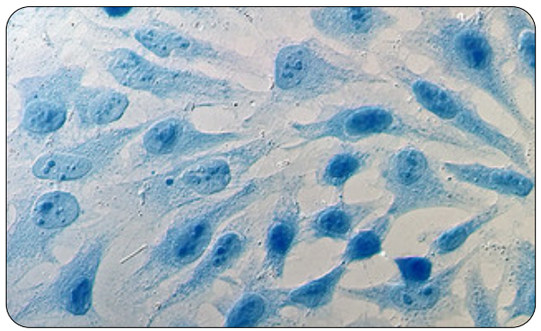
G protein-coupled receptors (GPCRs) are the largest family of membrane proteins and the most studied targets in drug discovery. They relay extracellular signals by triggering intracellular pathways through coupling with G proteins and arrestins.

Revvity's GPCR research solutions cover the full activation pathway, from ligand binding and G-protein activation to arrestin recruitment and downstream signaling events, offering versatile tools to support your research across GPCR targets.



Cell lines and membrane preparations

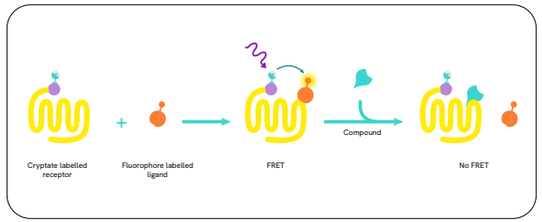
Revvity offers one of the largest portfolios of validated GPCR cell lines for diverse research applications.



- **GPCR cell lines:** Over 300 stable GPCR cells lines for binding and functional testing and over 130 cells lines for calcium testing
- **AequoScreen™ cell lines** are doubly transfected to co-express both Aequorin and a variety of GPCRs for calcium flux assays
- **ValiScreen™ cell lines** express a variety of different GPCRs
- **PhotoScreen™ cell lines** include photoprotein kinetic luminescence technology for measuring calcium flux in cells

Non-radioactive binding reagents

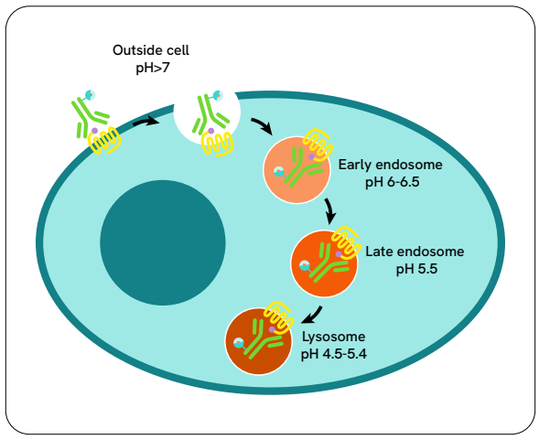
Non-radioactive Tag-lite™ binding assays use simple add-and-read protocols to characterize binding properties of compounds, regardless of chemical structures or pharmacological properties. Radioactive binding kits are also available.



Tag-lite labeled receptors and ligands	GPCR
Adenosine A1	Adenosine A1 receptor
Adenosine A2A	Adenosine A2A receptor
Adenosine A2B	Adenosine A2B receptor
Adenosine A3	Adenosine A3 receptor
Adrenergic beta-1	Adrenergic beta-1 receptor
Adrenergic beta-2	Adrenergic beta-2 receptor
Angiotensin AT2	Angiotensin AT2 receptor
Chemokine CXCR4	Chemokine CXCR4 receptor
Dopamine D2	Dopamine D2 receptor
Glucagon GIPR	Glucagon GIPR receptor
Glucagon GLP1	Glucagon GLP1 receptor
Orexin OX2	Orexin OX2 receptor
Serotonin 5HT1A	Serotonin 5HT1A receptor
Serotonin 5HT4	Serotonin 5HT4 receptor
Vasopressin V2	Vasopressin V2 receptor
Delta-opioid	Delta-opioid receptor
Kappa-opioid	Kappa-opioid receptor
Mu-opioid	Mu-opioid receptor

GPCR internalization

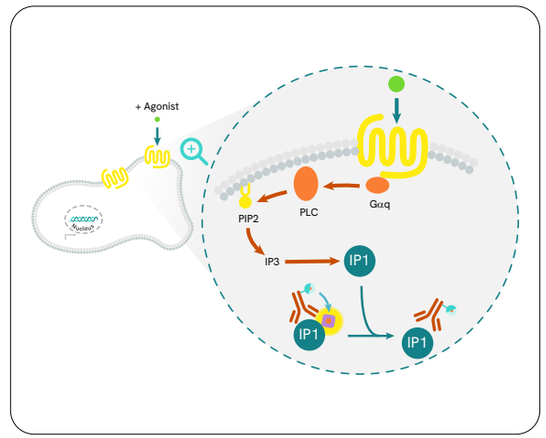
Revvity's pHSense™ assays offer a robust, plate-reader-based approach for tracking GPCR internalization using a pH-sensitive dye. It is finely tuned for kinetic and time-resolved analysis, even at low endogenous expression levels.



pHSense products
pHSense Eu Fab Anti-Human IgG
pHSense Eu Fab Anti-Mouse IgG1
pHSense Eu Fab Anti-Mouse IgG2
pHSense Eu Anti-FLAG
pHSense Eu Anti-HA
pHSense Eu SNAP Labeling Reagent
pHSense Eu Reader Control Kit

Early receptor-mediated events

Revvity offers assays that capture early GPCR receptor-mediated events, allowing for analysis of downstream signaling alterations and amplification of GPCR functional response at multiple levels.



GTP binding assay kits	Technology
Membrane GTP / Gi protein	HTRF™
Cellular GTP / Gi protein	HTRF

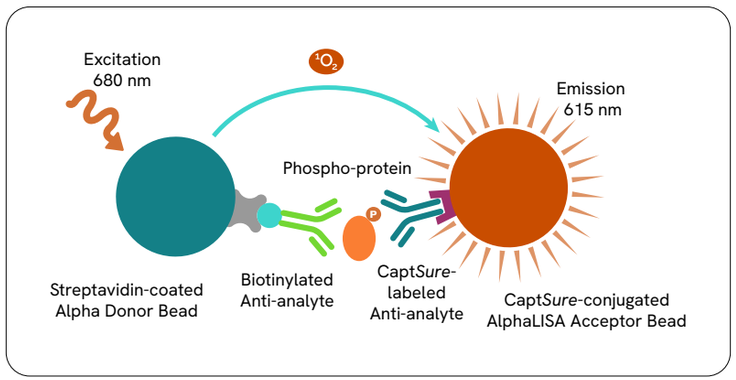
Second messenger assays	Technology
cAMP	AlphaScreen, HTRF, AlphaLISA, LANCE Ultra, LANCE
IP-One	HTRF, AlphaLISA

β-arrestin assay kits	Technology
β-arrestin 2 recruitment	HTRF
β-arrestin 1 total	HTRF
β-arrestin 2 total	HTRF
AP2 total	HTRF

Downstream cell signaling

While all GPCRs differ in their specific signaling pathways, phosphatases are always involved, serving as triggers and promoters for phosphorylation cascades down to the nucleus.

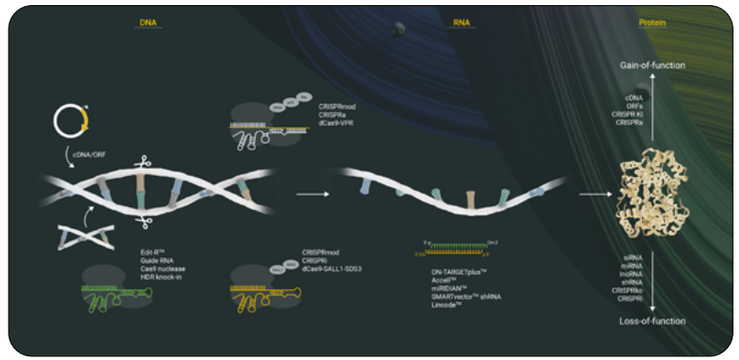
Revvity's no-wash immunoassays offer detection across the full GPCR activation pathway, capturing key intracellular signaling events from receptor engagement to downstream responses.



Phospho-AKT (Ser473)	Total B-RAF
Phospho-AKT (Thr308)	Mutant B-RAF (V600E)
Phospho-AKT (Thr450)	Phospho-Raf1 (Ser259)
Total AKT	Phospho-Raf1 (Ser338)
Phospho-AKT1 (S129)	Phospho-Raf1 (Ser43)
Phospho-AKT1 (Ser473)	Total Raf1
Total AKT1	Phospho-CREB (Ser133)
Phospho-AKT2 (Ser473)	Total CREB
Phospho-AKT2 (Ser474)	Phospho-ERK (Thr202/Tyr204)
Total AKT2	Phospho-ERK1/2 (Thr202/Tyr204)
Phospho-AKT3 (Ser472)	Total ERK
Phospho-AKT3 (Ser473)	Total ERK1/2
Total AKT3	Phospho-MEK1 (Ser218/222)
Phospho-BAD (Ser112)	Phospho-MEK1 (Ser298)
Phospho-BAD (Ser136)	Total MEK1
Total BAD	Phospho-MEK1/2 (Ser218/222)
Total A-RAF	Phospho-MEK2 (Ser217/221)
Phospho-B-RAF (Ser446)	Total MEK2

Functional genomics solutions

Dharmacon™ offers tools to manipulate thousands of GPCR genes in a single experiment by providing a convenient collection of CRISPR and RNAi libraries for high-throughput functional genomic screening.



Technology	Collections	Species
siRNA	ON-TARGETplus	Human
siRNA	Accell	Human
sgRNA	Edit-R synthetic	Human
sgRNA	Edit-R Lentiviral	Human
sgRNA	CRISPRmod CRISPRa	Human

For more flexibility visit our website for custom library design.

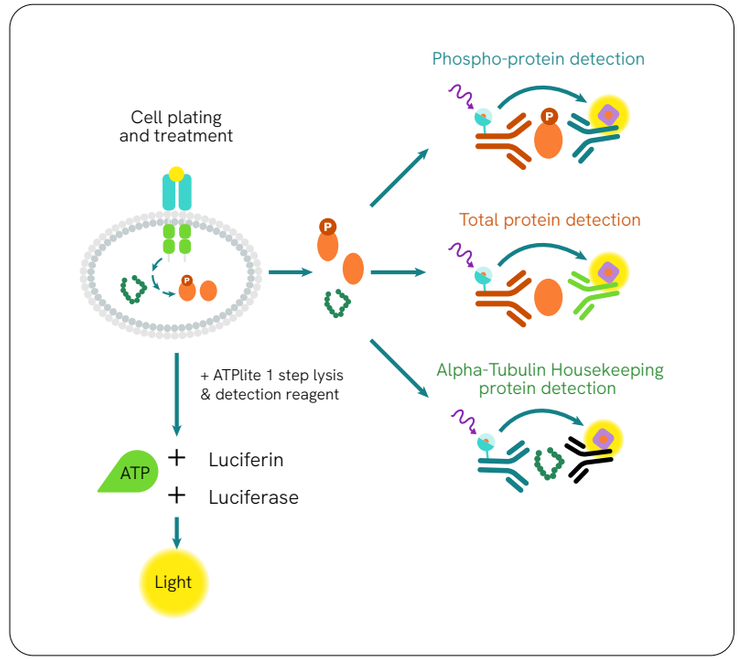
Custom solutions for drug discovery

Revvity is proud to be able to share our more than 30 years of experience in custom laboratory services, and to accompany scientists each year in their drug discovery research in a personalized way based on trust, exchange and efficiency.

We offer a range of custom assay development, profiling and labeling, to custom radiosynthesis.

Normalization

Normalizing with cell viability assays or housekeeping genes allows for representation of cellular mechanisms.



Cell viability	Half-life
ATPlite 1step	30 min
ATPlite	5 hours
ATPlite 1glow	> 3 hours
ATPlite 1glow (frozen)	> 3 hours

Housekeeping	Technology
GAPDH Housekeeping Kit	HTRF
Alpha-Tubulin Housekeeping Kit	HTRF

Performing as one.

Multimode plate readers

Advanced microplate readers combining cutting-edge detection technologies with flexibility.

	VICTOR Nivo™	EnVision Nexus™
Absorbance	Filter or spectrometer	Filter
Fluorescence intensity	Filter	Filter
Luminescence	▪[1]	▪[1]
Ultrasensitive luminescence		▪
TRF and TR-FRET	Lamp-based[2]	Lamp- or laser-based[2]
Fluorescence polarization	▪	▪
Alpha (laser-based)	Alpha standard	Enhanced Alpha and/or HTS Alpha
AlphaPlex (laser-based)		▪
Dual PMT detector		▪

1 - Capable of BRET/BRET2 assays
2 - HTRF certified

High-content imaging instruments

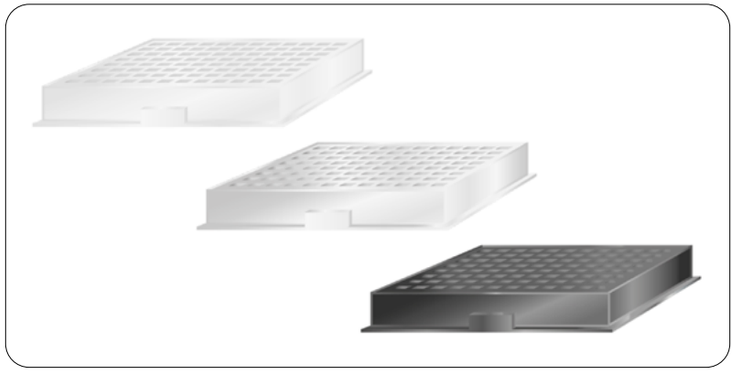
Confocal spinning disk systems, providing gentle imaging with efficient background rejection, and are equipped with water immersion objectives for enhanced signal and improved z resolution.

Operetta CLS™ high-content analysis system

Opera Phenix OptIQ™ high-content screening system

Microplates for research

Our OptiPlates™, AlphaPlates™, and ProxiPlates™ research-grade microplates, available in black, gray, and white, are designed to give you optimal performance. They're made using quality plastic injected into a mold in a cleanroom. Together with our strict QC tolerance testing, this ensures that you're getting the best quality microplate possible. In addition, we offer a selection of treatments and coatings that fit all your research needs.



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