

GPCR, TRANSPORTER, AND ION CHANNEL SCREENING

G Protein Coupled Receptors (GPCR), nuclear hormone receptors, ion channels, and transporters are all important drug targets. Over 50% of drugs targets are receptors, making them the most important drug targets. ChemPartner's *in vitro* biology team utilizes FLIPR calcium flux, cAMP, reporter genes, and radiometric assays to provide customized assay development and high-throughput screening services to support our clients' drug discovery for receptors, ion channels, and transporters.

CAPABILITIES

MULTIPLE FUNCTIONAL READOUTS

- FLIPR assay (Calcium flux for GPCR and ion-channel, FMP for transporter or ion channel)
- cAMP assay (LANCE, HTRF)
- Receptor binding assay
- Receptor occupancy on brain homogenate reporter gene
- Uptake assay

ASSAY FORMATS

- HTRF cAMP Assay (GPCR)
- Calcium Flux (GPCR & Ion Channel)
- Membrane Potential Assay (Ion Channel)
- Radiolabel Binding Assay (GPCR)
- Radiolabel Uptake Assay (Transporter)

BROAD SERVICE SCOPE

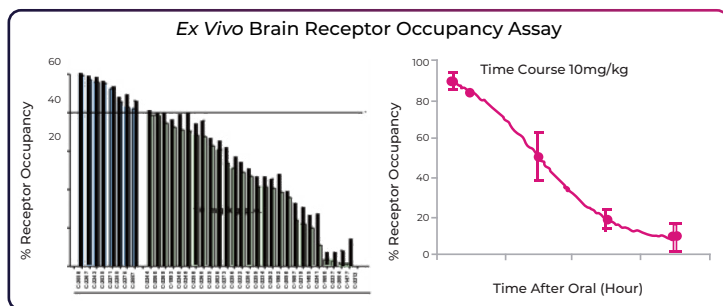
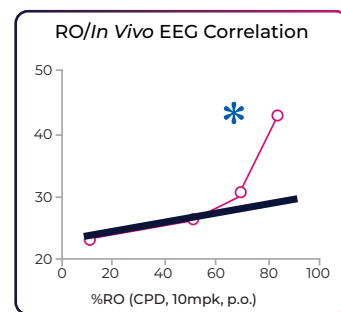
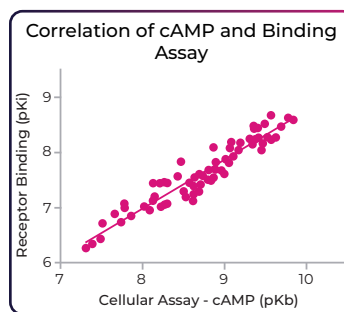
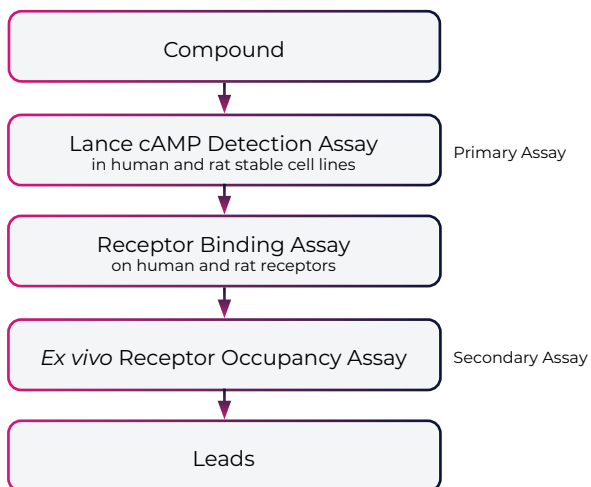
- High-throughput screening
- Compound profiling of SAR
- Selectivity panel screening IC50 test

GPCR

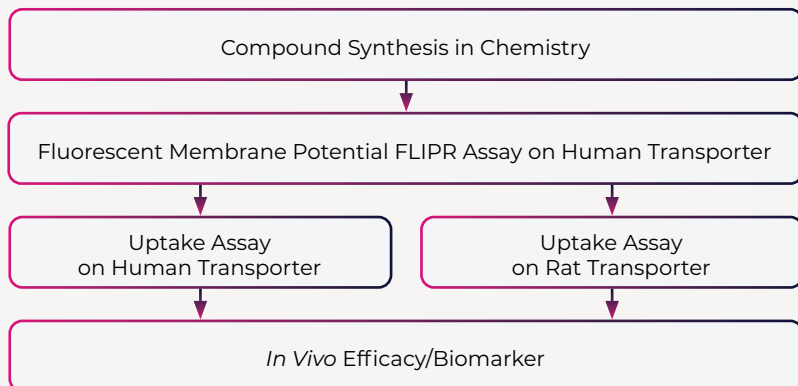
Adenosine	Adrenergic	Dopamine	Fatty Acid	Histamine	Mtobotropic Glutamate	Muscarinic Acetylcholine	NPY	Serotonin
A1	α1A	D1	GPR40	H1	GLP-1	M1	NPY2	5HT1A
A2A	α1B	D2		H2		M2	NPY4	5HT1B
	α2A	D4		H3		M3		5HT1E
	β2					M5		5HT2A
								5HT2B
								5HT2C

Ion Channel					Transporter	
P2X3	TRPC6	P2X2/3	P2X4	P2X7	URAT1	Glutamate

DRUG DISCOVERY IN GPCR



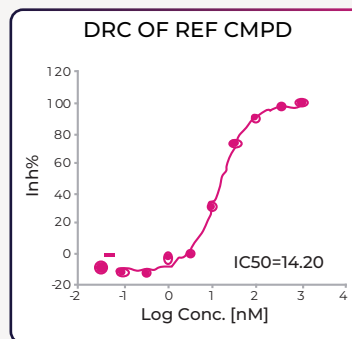
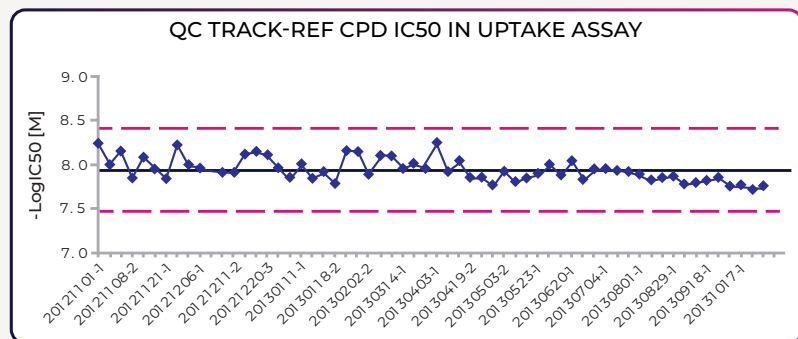
DRUG DISCOVERY IN TRANSPORTERS



- Target: A Neurotransmitter Transporter
- Project Goal: Hit-to-Lead
- Disease: Pain

ASSAY PLATE-PLATE NO.

- Uptake assay using CytoStar-T scintillating microplates from PE
 - No wash or separation step
 - Real-time analysis



LEARN MORE AT CHEMPARTNER.COM/SERVICES/BIOLOGY-PHARMACOLOGY/IN-VITRO-BIOLOGY/GPCR-ION-CHANNEL-TRANSPORTER/