PathHunter® eXpress rCHRM4 CHO-K1 β-Arrestin GPCR Assay

Catalog Number: **93-0870E2** **Lot Number:** See Vial

Contents: 1 x 10^6 cells per vial in 0.1 mL

Background

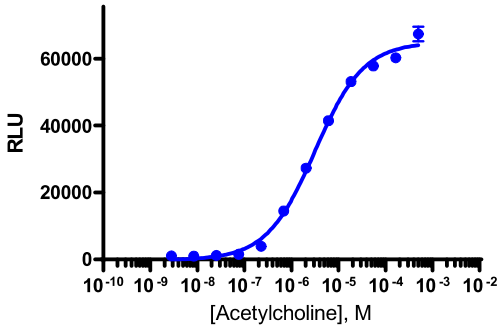
PathHunter eXpress β-Arrestin GPCR cells are engineered to co-express the ProLink™ (PK) tagged GPCR and the Enzyme Acceptor (EA) tagged β-Arrestin. Activation of the GPCR-PK induces β-Arrestin-EA recruitment, forcing complementation of the two β-galactosidase enzyme fragments (EA and PK). The resulting functional enzyme hydrolyzes substrate to generate a chemiluminescent signal. These cells have been modified to prevent long term propagation and expansion using a proprietary compound that has no apparent effect on assay performance.

Product Information

Target GPCR:	rCHRM4
Description:	Cholinergic receptor, muscarinic 4
Receptor Family:	Acetylcholine
Coupling:	Gs & Gi/Go
Accession Number:	NM_031547
GPCR Species:	Rat
β-Arrestin Isoform:	β-Arrestin-2
ProLink™ Tag:	ARMS2-PK2
Cell Type:	CHO-K1
Storage:	Short term (<24 h): Store at -80°C; Long term (>24 h): Store in vapor phase of liquid nitrogen.

Functional Performance

Cells were plated in a 96-well plate and stimulated with a control agonist, using the assay conditions described below. Following stimulation, signal was detected according to the recommended protocol. Please refer below for information on control compounds.



Cell Number/Well:	10000
Control Agonist:	Acetylcholine
Cell Plating Reagent:	AssayComplete™ Cell Plating 2 Reagent
Cell Incubation Time (Hours):	24
Agonist Incubation Time (Minutes):	90
Agonist Incubation Temperature (°C):	37
EC_{50} for Agonist Stimulation (nM):	3183
Signal:Background at Agonist E_{max}:	65.5

Additional Ligand Information

Control Agonist: Acetylcholine

Vendor: Eurofins DiscoverX® (Catalog No. 92-1125)

Additional Prolink™ Tag Description

PK2 is a slight variant of PK1 and has been shown to enhance EFC. ARMS (Arrestin Recruitment Modulating Sequence) is an 18-21 amino acid spacer between the GPCR and the PK tag and has been shown to enhance β-Arrestin recruitment.

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