

PathHunter® CHO-K1 ADRA2A β -Arrestin Cell Line

Catalog Number: 93-0424C2 **Lot Number:** See Vial

Contents: 2 vials, 1 x 10⁶ cells per vial in 1 mL

Background

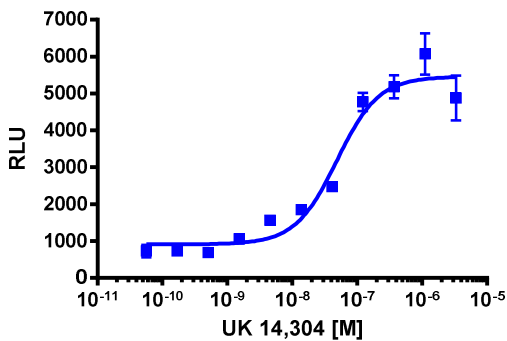
PathHunter β -Arrestin GPCR cell lines are engineered to co-express the ProLink™ (PK) tagged GPCR and the Enzyme Acceptor (EA) tagged β -Arrestin. Activation of the GPCR-PK induces β -Arrestin-EA recruitment, forcing complementation of the two β -galactosidase enzyme fragments (EA and PK). The resulting functional enzyme hydrolyzes substrate to generate a chemiluminescent signal.

Product Information

Target GPCR: ADRA2A
Description: Adrenergic receptor alpha 2A
Receptor Family: Adrenoceptors
Coupling: Gi/Go
Accession Number: NM_000681
GPCR Species: Human
 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 384-well plate and incubated overnight at 37°C and 5% CO₂ to allow the cells to attach and grow. Cells were then stimulated with a control agonist, using the assay conditions described below. Following stimulation, signal was detected using the PathHunter Detection Kit according to the recommended protocol. Please refer to page 2 for recommended assay reagents, detection reagents, and control compounds.



Cell Number/Well: 5000
Control Agonist: UK 14,304
Agonist Incubation Time (minutes): 90
Agonist Incubation Temperature (°C): 37
EC₅₀ for Agonist Stimulation (nM): 4.7
Signal:Background at Agonist E_{max}: 5.5
Control Antagonist: Yohimbine
IC₅₀ of Antagonist (nM): 12.1

Passage Stability

This cell line has been confirmed to be stable through 10 passages with no significant drop in assay window or change in EC₅₀.

Mycoplasma Testing

This lot was tested and found to be free of mycoplasma contamination. Data available upon request.

Required Materials

The following additional materials are required but not provided:

Product Use*	Product Description	Catalog Number
Detection	PathHunter® Detection Kit	93-0001
Cell Culture	AssayComplete™ Cell Culture Kit-107	92-3107G
Cell Plating	AssayComplete™ Cell Plating 2 Reagent	93-0563R2A
Cell Detachment	AssayComplete™ Cell Detachment Reagent	92-0009
Cell Thawing	AssayComplete™ Thawing Reagent T2	92-4102TR
Cell Freezing	AssayComplete™ Freezing Reagent F2	92-5102FR

*Please inquire about our cell line-specific AssayComplete Starter Packs to get you started with your cell culture needs.

Required Antibiotics

Antibiotic Name	Concentration (µg/mL)	Catalog Number
AssayComplete™ Puromycin	Not Applicable	Not Applicable
AssayComplete™ Hygromycin B	300	92-0029
AssayComplete™ G418	800	92-0030

Additional Ligand Information

Control Compound: UK 14,304

Vendor: DiscoverX® (Catalog No. 92-1156)

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.

For order placement or technical support, please call 1.866.448.4864 (North America) or +44.121.260.6142 (Europe) or e-mail info@discoverx.com. For additional information, please visit discoverx.com.

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