

## PathHunter® CHO-K1 DRD3 $\beta$ -Arrestin Cell Line

**Catalog Number:** 93-0591C2

**Lot Number:** See Vial

**Contents:** 2 vials,  $1 \times 10^6$  cells per vial in 1 mL

### Background

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

### Product Information

**Target GPCR:** DRD3

**Description:** Dopamine Receptor D3

**Receptor Family:** Dopamine

**Coupling:** Gi/Go

**Accession Number:** NM\_000796.3

**GPCR Species:** Human

**$\beta$ -Arrestin Isoform:**  $\beta$ -Arrestin-2

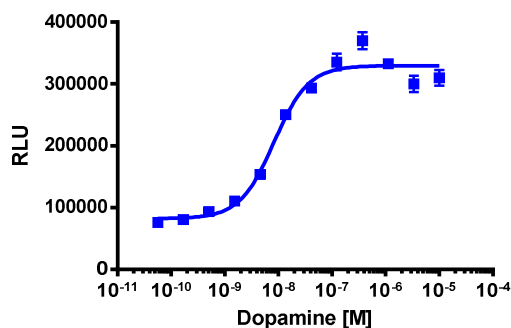
**ProLink™ Tag:** ARMS2-PK2

**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% CO<sub>2</sub> 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:** Dopamine

**Agonist Incubation Time (minutes):** 90

**Agonist Incubation Temperature (°C):** 37

**EC<sub>50</sub> for Agonist Stimulation (nM):** 8.3

**Signal:Background at Agonist E<sub>max</sub>:** 4.1

**Control Antagonist:** Risperidone

**IC<sub>50</sub> of Antagonist (nM):** 15.6

### Passage Stability

This cell line has been confirmed to be stable through 10 passages with no significant drop in assay window or change in EC<sub>50</sub>.

### 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:** Dopamine

**Vendor:** DiscoverX® (Catalog No. 92-1161)

### 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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