

PathHunter[®] CHO-K1 GPR39 β -Arrestin Orphan GPCR Cell Line

Catalog Number: 93-0338C2 **Lot Number:** See Vial
Contents: 2 vials, 1 x 10⁶ cells per vial in 1 mL

Background

PathHunter β -Arrestin Orphan 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: GPR39
Description: G-protein coupled receptor 39
Receptor Family: Class A Orphan
Accession Number: NM_001508
GPCR Species: Human
 β -Arrestin Isoform: β -Arrestin-2
ProLink[™] Tag: PK1
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

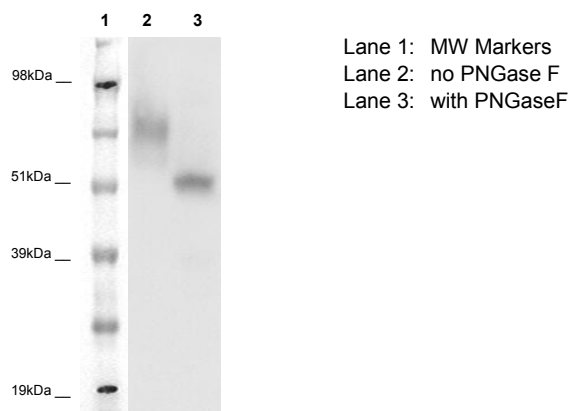


Figure 1. Cell lysates prepared from PathHunter β -Arrestin Orphan GPCR cell lines were treated with PNGase F (Glyko; Cat. #GKE-5003), run on a SDS-PAGE gel and analyzed. Untreated lane resolves a band of appropriate size corresponding to GPCR-PK fusion protein and the PNGase F treated lane resolves a deglycosylated band indicative of proper expression and folding of GPCR protein.

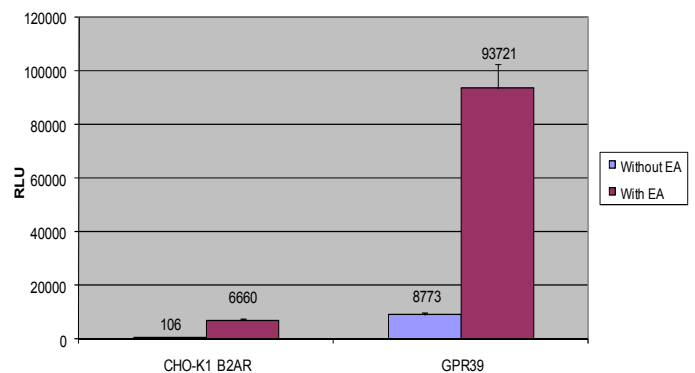


Figure 2. PathHunter β -Arrestin Orphan GPCR cells were analyzed for basal activity as well as GPCR-ProLink[™] expression by comparing the ratio of signal between untreated cells and cells treated with saturating amounts of exogenous EA, using ProLink[™] Detection Kit (DrX: 92-0006). Signal from complementation of ProLink[™] and EA fragments correlates to the amount of GPCR-PK expression in the cell line.

Important! This assay requires an additional step: Please refer to Additional Protocol Information section.

Passage Stability

This cell line has been confirmed to be stable through 10 passages with no significant change in GPCR-PK expression level.

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 1 Reagent	93-0563R1A
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 Protocol Information

ZnCl₂ will strongly inhibit Enzyme Fragment Complementation (EFC) enzyme activity at pharmacologically relevant concentrations, preventing detection of an agonist-induced PathHunter assay signal. Therefore, ZnCl₂ cannot be used as an agonist in this assay to test receptor-mediated arrestin recruitment. However, ZnCl₂ is compatible with typical Calcium flux assays, which do not use EFC for signal detection.

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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