

cAMP Hunter™ CHO-K1 PTHR2 Gs/Gq Cell Line

Catalog Number: 95-0057C2 **Lot Number:** See Vial

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

Background

cAMP Hunter cell lines overexpress naturally coupled, wildtype GPCRs and are designed to detect increases in intracellular cAMP levels (Gs-coupled receptors) or inhibition of intracellular cAMP production (Gi-coupled receptors) in response to agonist stimulation of the receptor. These cell lines are designed to be used in conjunction with the HitHunter[®] cAMP Assay Detection Kit. cAMP Hunter cell lines expressing receptors that will couple to Gq proteins can also be used to detect induction of calcium mobilization.

Product Information

Target GPCR: PTHR2

Description: Parathyroid hormone receptor 2

Receptor Family: Parathyroid hormone

Coupling: Gs & Gq

GPCR Species: Human

Accession Number: AY497546

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 either the HitHunter cAMP Assay Detection Kit or the Calcium No Wash^{Plus} detection kit according to the recommended protocols. Please refer to page 2 for recommended assay reagents, detection reagents, and control compounds.

HitHunter cAMP Detection Assay

Cell Number/Well: 5000

Agonist Incubation Time (minutes): 30

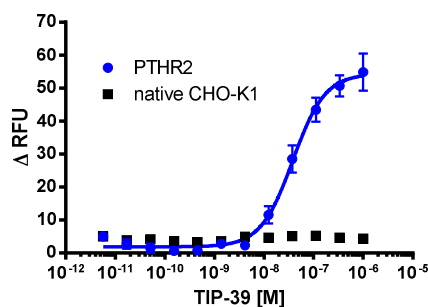
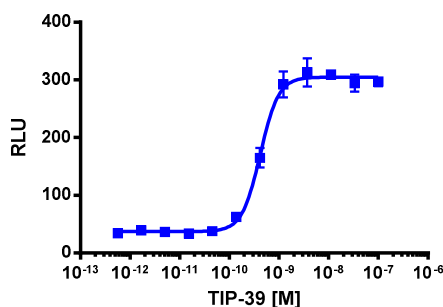
Agonist Incubation Temp. (°C): 37

Ca²⁺ Mobilization Assay

Cell Number/Well: 10000

Signal Read Time (@ 2 seconds intervals): 2 minutes

Signal Read Temperature (°C): RT



EC₅₀ for Agonist Stimulation (nM): 0.42

EC₅₀ for Calcium Mobilization (nM): 38.1

Signal:Background at agonist E_{max}: 8.7

Note: This cell line was developed and quality control tested via the HitHunter cAMP Assay Detection Kit only. Calcium mobilization assay was run independently from the HitHunter cAMP Assay Detection Kit. Calcium data is background subtracted and represented as ΔRFU (Relative Fluorescence Units).

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 | HitHunter® cAMP Assay for Small Molecules HitHunter cAMP Assay for Biologics | 90-0075SM Series 90-0075LM Series |
| Ca ²⁺ Detection Reagent | Calcium No Wash ^{PLUS} | 90-0091 |
| 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 | Not Applicable | Not Applicable |
| AssayComplete™ G418 | 800 | 92-0030 |

Additional Ligand Information

Control Agonist: TIP-39

Vendor: DiscoverX® (Catalog No. 92-1071)

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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