

cAMP Hunter™ CHO-K1 EDG2 Gi/Gq Cell Line

Catalog Number: 95-0135C2 **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: EDG2

Description: Lysophosphatidic acid receptor 1

Receptor Family: Lysophospholipid (LPA)

Coupling: Gi/Go & Gq

GPCR Species: Human

Accession Number: NM_001401.3

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

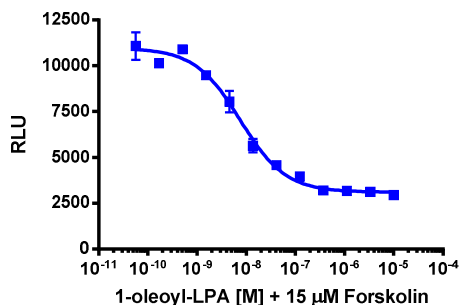
Cells were plated in a 384-well plate and incubated overnight at 37°C and 5% CO₂ to allow the cells to attach and grow. Cells were then stimulated with a control agonist, using the assay conditions described below. Following stimulation, signal was detected using either the HitHunter cAMP Assay Detection 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: 10000

Agonist Incubation Time (minutes): 30

Agonist Incubation Temp. (°C): 37



EC₅₀ for Agonist Stimulation (nM): 7.5

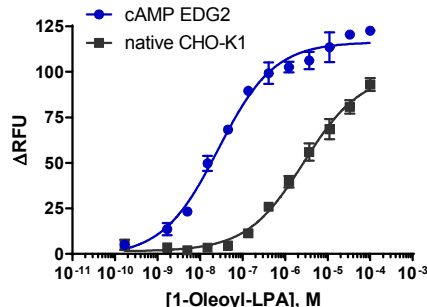
Signal:Background at agonist E_{max}: 3.6

Ca²⁺ Mobilization Assay

Cell Number/Well: 10000

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

Signal Read Temperature (°C): RT



EC₅₀ for Calcium Mobilization (nM): 27.0

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).

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 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 20 Reagent	93-0563R20A
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: 1-Oleoyl-LPA

Vendor: DiscoverX® (Catalog No. 92-1041)

Additional Protocol Information

If running a Calcium flux assay with these cells, it is important that the buffer (e.g. HBSS/20mM HEPES) used as the diluent for the agonist dose-response dilution curve (or EC80 challenge) contains 0.1% BSA.

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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