MULTISCREEN™ STABLE CELL LINE
HUMAN RECOMBINANT GPR35 RECEPTOR

PRODUCT INFORMATION

Catalog Number: CG1096-1

Lot Number: CG1096-1-020718

Quantity: 1 vial (2 x 10^6) frozen cells

Freeze Medium: Cellbanker 2 (Amsbio 11891)

Host cell: CHO-K1 Gα16

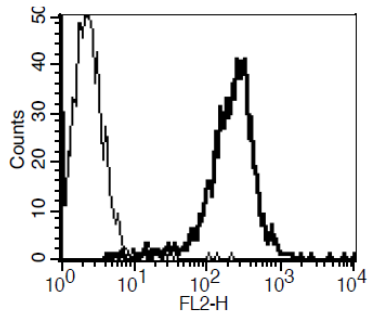
Transfection: Expression vector containing full-length human GPR35 cDNA (GenBank Accession Number NM_005301) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM/F12, 10% FBS, 10 μg/mL puromycin, 800 μg/mL G418

Stability: In progress

Figure 3



Data sheet

Background: GPR35 is an orphan receptor and expressed in various tissues including stomach, gastrointestinal tissues, and several types of immune cells. Up-regulation of GPR35 has been found in human mast cells upon stimulation with IgE antibodies, human macrophages treated with the environmental contaminant polycyclic aromatic hydrocarbon benzo[a]pyrene, failing heart cells, and gastric cancer cells. Known agonists of the orphan receptor GPR35 are kynurenic acid, zaprinast, 5-nitro-2-(3-phenylproplyamino) benzoic acid, and lysophosphatidic acids.

Application: Functional assays

Figure 1

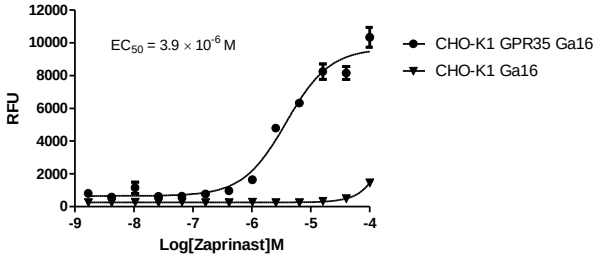


Figure 2

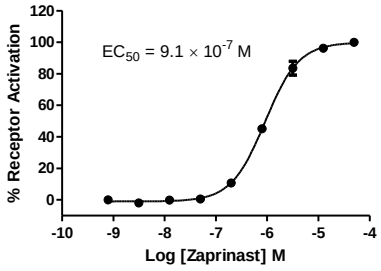


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01). **Figure 2.** Dose-dependent stimulation of pERK level upon treatment with ligand, monitored with FlexStation. **Figure 3.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

References:

Wang JH *et al*. (2006) Kynurenic Acid as a Ligand for Orphan G Protein-coupled Receptor GPR35. *J Biol Chem* 281:22021-22028.

MacKenzie1, AE**,** *et al*. (2011) GPR35 as a novel therapeutic target. *Frontiers in Endocrinology,* 2:1-10.

Zhao PW, *et al*. (2010) Targeting of the Orphan Receptor GPR35 by Pamoic Acid: A Potent Activator of Extracellular Signal-Regulated Kinase and beta-Arrestin2 with Antinociceptive Activity. *Mol Pharm* 78:560–568.

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