

## MULTISCREEN™ STABLE CELL LINE MOUSE RECOMBINANT GPR35 RECEPTOR

### PRODUCT INFORMATION

**Catalog Number:** CGm1096-1

**Lot Number:** CGm1096-1-020718

**Quantity:** 1 vial ( $2 \times 10^6$ ) frozen cells

**Freeze Medium:** Cellbanker 2 (Amsbio 11891)

**Host cell:** CHO-K1 G $\alpha$ 16

**Transfection:** Expression vector containing full-length mouse GPR35 cDNA (GenBank Accession Number: BC027429) with FLAG tag sequence at N-terminus

**Recommended Storage:** Liquid nitrogen upon receiving

**Propagation Medium:** DMEM/F12, 10% FBS, 10  $\mu$ g/mL puromycin, 800  $\mu$ g/mL G418

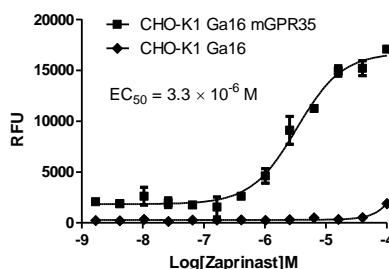
**Stability:** In progress

### Data sheet

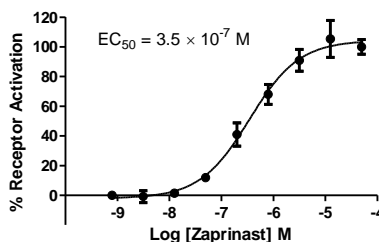
**Background:** GPR35 is an orphan receptor and expressed in various tissues including stomach, gastrointestinal tissues, and several types of immune cells. Up-regulation of GPR35 has been found in human mast cells upon stimulation with IgE antibodies, human macrophages treated with the environmental 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-phenylpropylamino) benzoic acid, and lysophosphatidic acids.

**Application:** Functional assays

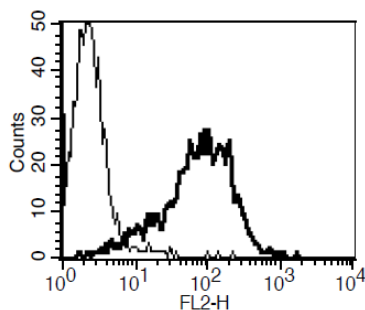
**Figure 1**



**Figure 2**



**Figure 3**



**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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