

**MULTISCREEN™ STABLE CELL LINE  
HUMAN RECOMBINANT GPR151 RECEPTOR**

**PRODUCT INFORMATION**

**Catalog Number:** CG1181-1

**Lot Number:** CG1181-1-120417

**Quantity:** 1 vial (2 x 10<sup>6</sup>) frozen cells

**Freeze Medium:** Cell Banker 2  
(Amsbio 11891)

**Host cell:** CHO-K1 Gα16 Gqι5

**Transfection:** Full-length Human GPR151 (GenBank Accession Number NM\_194251) with FLAG-tag sequence at the N-terminus

**Recommended Storage:** Liquid nitrogen upon receiving

**Propagation Medium:** DMEM, 10% FBS, 10 μg/mL puromycin, 250 μg/mL hygromycin, 1 mg/mL G418

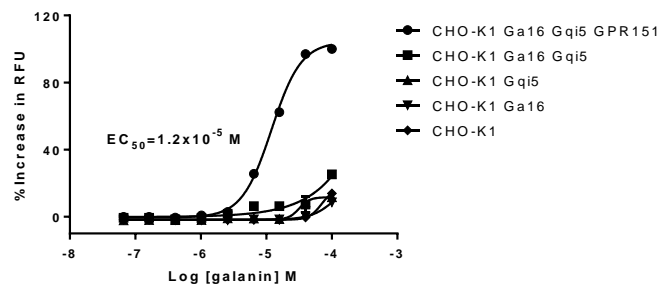
**Stability:** In Progress

**Data sheet**

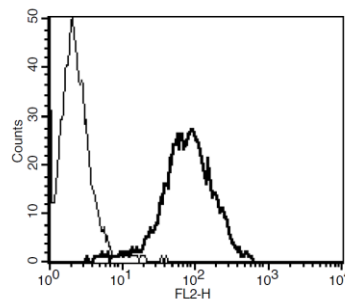
**Background:** The diverse physiological effects of Galanin, a biologically active neuropeptide, are mediated through cell surface G protein-coupled receptors. There are three galanin receptor subtypes, GALR1, GALR2 and GALR3 that have been widely used and Recently, a new GPCR, GalRL4 have been identified, termed as GPR151, which shows 41–43% similarity at the amino-acid level with the galanin-receptor subfamily. Galanin, widely distributed in the central and peripheral nervous systems and the endocrine systems, binds to galanin receptors to induce several regulatory functions in neuronal cells, including neuroregeneration, control of endocrine and exocrine secretions, and modulation of sensory and behavioral functions. Galanin agonists have been shown to have therapeutic application in treatment of chronic pain; galanin antagonists have therapeutic potential in treatment of Alzheimer's disease, depression, and feeding disorders.

**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.** 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:**

Branchek et al. (1998) Molecular biology and pharmacology of galanin receptors. *Ann N Y Acad Sci* 863: 94-107.

Wang et al. (1998) Differential intracellular signaling of the GalR1 and GalR2 galanin receptor subtypes. *Biochemistry* 37:6711-6717.

Ignatov et al. (2004) Cloning and characterization of a novel G-protein-coupled receptor with homology to galanin receptors. *Neuropharmacology*, 46 (8): 1114-20.

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