MULTISCREEN™ STABLE CELL LINE
HUMAN RECOMBINANT GAL1 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: CG1178-1

Lot Number: CG1178-1-021506

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

Freeze Medium: CellBanker2

Host cell: CHO-K1 Gαqi5

Transfection: Expression vector containing full-length human GAL1 cDNA (GenBank Accession Number NM_001480) with flag tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

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

Stability: Stable after minimum of two months continuous growth

Background: The diverse physiological effects of Galanin, a biologically active neuropeptide, are mediated through cell surface G protein-coupled receptors. To date, three galanin receptor subtypes, GAL1, GAL2 and GAL3, have been cloned. 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

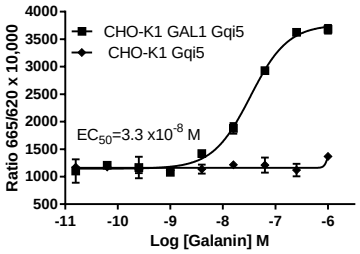

Figure 2

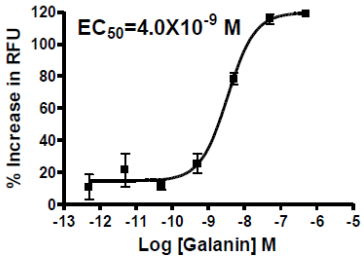

Figure 3

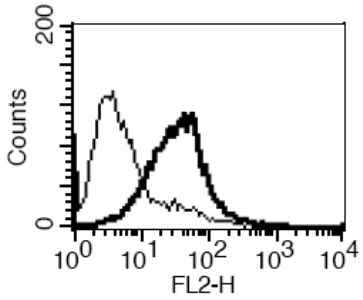

Figure 1. Dose-dependent inhibition of forskolin-stimulated intracellular cAMP accumulation upon treatment with ligand, measured with MultiScreen™ TR-FRET cAMP 1.0 No Wash Assay Kit (Multispan MSCM01). **Figure 2**. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with MultiScreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01). **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:

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.

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