MULTISCREEN™ STABLE CELL LINE
HUMAN RECOMBINANT MGLUR6 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: C1193-060711

Lot Number: C1193

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: HEK293T

Transfection: Expression vector containing full-length human GRM6 cDNA (NM_000843.3) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM with GlutaMAX (Gibco 10566), 10% FBS (dialyzed), 2 mM sodium pyruvate, 1 µg/mL puromycin

Stability: Stable after two months of continuous growth

Background: The metabotropic glutamate receptors (mGluRs) are divided into 3 groups on the basis of sequence homology, putative signal transduction mechanisms, and pharmacological properties. Group II and group III mGluRs are linked to inhibition of the cyclic AMP cascade, but differ in their agonist selectivity. mGluR6 is a member of Group III. It mainly expresses in on-bipolar cells in retina.

Application: Functional assays

Figure 1

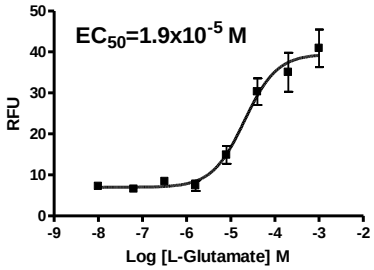

Figure 2

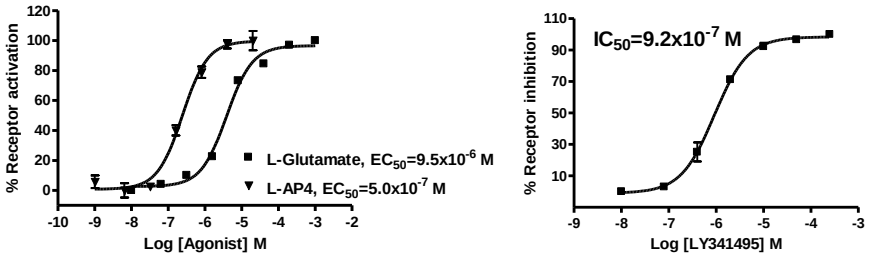

Figure 3

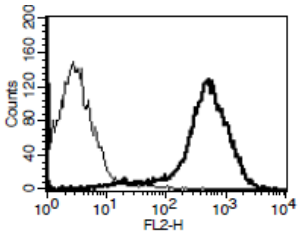

Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, monitored with FlexStation. **Figure 2.** Dose-dependent response of forskolin-stimulated intracellular cAMP level upon treatment with ligand, measured with cAMP HiRange kit (Cisbio 62AM6PEC). **Figure 3.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

References:

Laurie *et al.* (1997) Cloning, distribution and functional expression of the human mGlu6 metrbottropic glutamate receptor. *Neuropharmacology* 36:145-152.

Dryja *et al.* (2005) Night blindness and abnormal cone electroretinogram on responses in patients with mutations in the GRM6 gene encoding mGluR6. *Proc Natl Acad Sci USA* 102:4884–4889.

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