

MULTISCREEN™ STABLE CELL LINE HUMAN RECOMBINANT MGLUR6 RECEPTOR

PRODUCT INFORMATION

Catalog Number: CG1193

Lot Number: CG1193-070811

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: HEK293T Gαq5

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, 250 µg/mL hygromycin

Stability: In progress

Data sheet

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

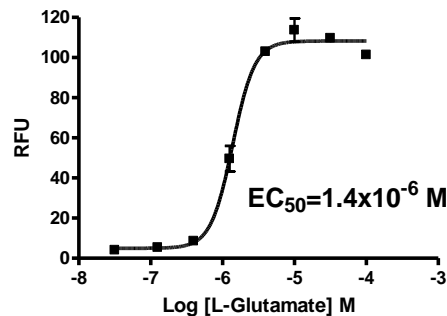


Figure 2

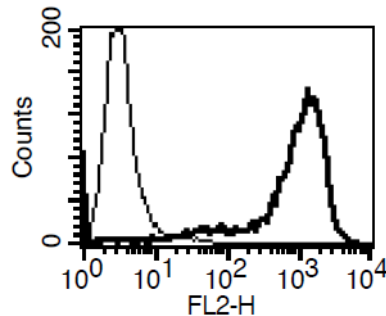


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01). **Figure 2.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick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

References:

Laurie *et al.* (1997) Cloning, distribution and functional expression of the human mGlu6 metabotropic 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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