

MULTISCREEN™ STABLE CELL LINE MOUSE RECOMBINANT mGLUR4 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: HGm1191-1b

Lot Number: HGm1191-1b-041613

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: CHO-K1 Gq*α*5

Transfection: Expression vector containing full-length mouse GRM4 cDNA (GenBank Accession Number BC072635) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM/F-12 with glutaGRO (Corning 10-103-CV), 10% FBS (dialyzed), 2 mM sodium pyruvate, 250 µg/mL hygromycin, 10 µg/mL puromycin

Stability: In progress

Background: L-glutamate is the major excitatory neurotransmitter in the central nervous system and activates both ionotropic and metabotropic glutamate receptors. The metabotropic glutamate receptors (mGluRs), which are G protein-coupled receptors, have been divided into 3 groups on the basis of sequence homology, putative signal transduction mechanisms, and pharmacologic properties. Group II and group III mGluRs are linked to the inhibition of the cyclic AMP cascade, but differ in their agonist selectivity. Group III agonists include L-2-amino-4-phosphonobutyrate (L-AP4) and L-serine-O-phosphate (Wu et al., 1998).

Application: Functional assays

Figure 1

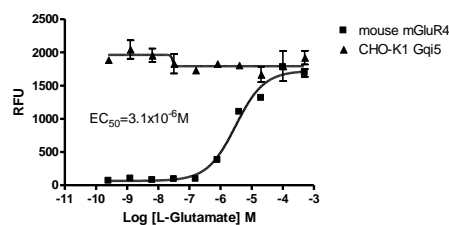


Figure 2

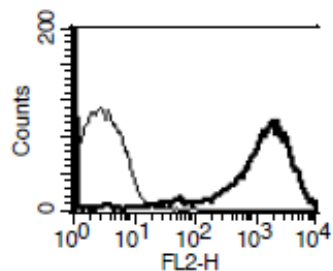


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01).

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:

Wu *et al.* (1998) Group III human metabotropic glutamate receptors 4, 7 and 8: molecular cloning, functional expression, and comparison of pharmacological properties in RGT cells. *Mol Brain Res* 53:88-97.

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