

MULTISCREEN™ STABLE CELL LINE HUMAN RECOMBINANT MGLUR5 RECEPTOR

PRODUCT INFORMATION

Catalog Number: C1192

Lot Number: C1192-122809

Quantity: 1 vial (4×10^6) frozen cells

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: HEK293T

Transfection: Expression vector containing full-length human GRM5 cDNA (NM_000842.1) 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 μ g/mL puromycin

Stability: Stable after two months of continuous growth

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. mGluR5 is a member of Group I. It mainly expresses the brain although its precise role in various cortical functions remains unclear.

Application: Functional assays

Figure 1

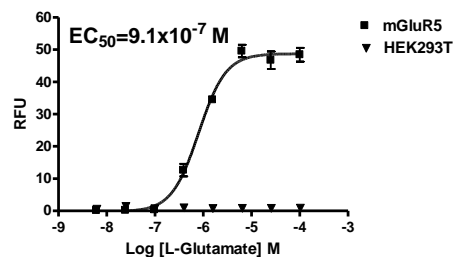


Figure 2

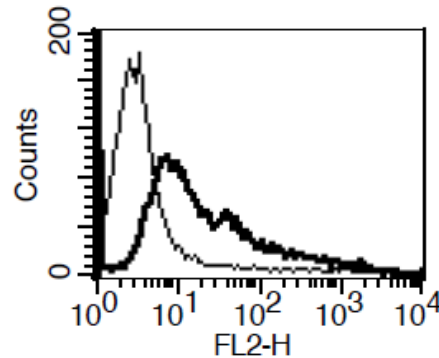


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, monitored with FlexStation. **Figure 2.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

References:

Romano *et al.* (1995) Distribution of metabotropic glutamate receptor mGluR5 immunoreactivity in rat brain. *J Comp Neurol* 355:455-469.

She *et al.* (2009) Roles of mGluR5 in synaptic function and plasticity of the mouse thalamocortical pathway. *Eur J Neurosci* 29:1379-1396.

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