

**MULTISCREEN™ STABLE CELL LINE  
HUMAN RECOMBINANT MGLUR7 RECEPTOR**

**Data sheet**

**PRODUCT INFORMATION**

**Catalog Number:** C1194

**Lot Number:** C1194-081210

**Quantity:** 1 vial ( $2 \times 10^6$ ) frozen cells

**Freeze Medium:** Sigma Freezing Medium (C-6164)

**Host cell:** HEK293T

**Transfection:** Expression vector containing full-length human GRM7 cDNA (GenBank Accession Number NM\_000844) with FLAG tag sequence at N-terminus

**Recommended Storage:** Liquid nitrogen upon receiving

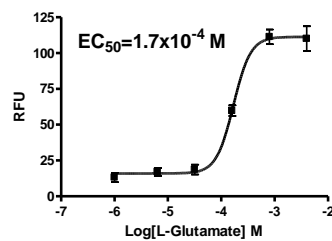
**Propagation Medium:** DMEM with GlutaMAX (Gibco 10566), 10% FBS (dialyzed), 2 mM sodium pyruvate, 1 µg/mL puromycin

**Stability:** Stable after two months of continuous growth

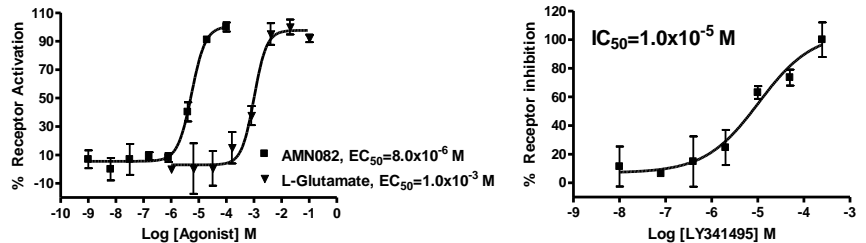
**Background:** The metabotropic glutamate receptors (mGluRs) are divided into 3 groups on the basis of sequence homology, putative signal transduction mechanisms, and pharmacological properties. Group II and group III mGluRs are linked to inhibition of the cyclic AMP cascade, but differ in their agonist selectivity. mGluR7 is a member of Group III. Immunohistochemistry and in situ hybridization showed that mGluR7 expresses in various sites in the nervous system.

**Application:** Functional assays

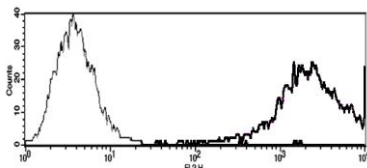
**Figure 1**



**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:**

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. *Brain Res Mol Brain Res* 53:88-97.

Makoff *et al.* (1996) Human metabotropic glutamate receptor type: molecular cloning and mRNA distribution in the CNS. *Brain Res Mol Brain Res* 40:165-170.

Muto *et al.* (2007) Structures of the extracellular regions of the group II/III metabotropic glutamate receptors. *Proc Natl Acad Sci USA* 104:3759-3764.

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