MULTISPAN
Assay Experts in GPCRs and Beyond

MULTISCREEN™ STABLE CELL LINE
DOG RECOMBINANT MGLUR7 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: Cd1194

Lot Number: Cd1194-111725

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

Freeze Medium: Cellbanker2

Host cell: HEK293T

Transfection: Expression vector containing full-length dog GRM7 cDNA (GenBank Accession Number XM_038427067.1) 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 µg/mL puromycin

Stability: Stable for a minimum of 2 months in continuous culture

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

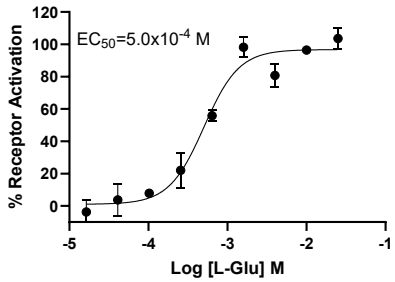

Figure 2

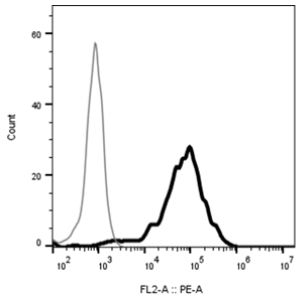

Figure 1. Dose-dependent response of forskolin-stimulated intracellular cAMP level upon treatment with ligand, measured with MULTISCREEN™ TR-FRET cAMP 1.0 No Wash Assay Kit (Multispan MSCM01). **Figure 2.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. 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. *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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