

MULTISCREEN™ STABLE CELL LINE RAT RECOMBINANT mGLUR4 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: Cr1191

Lot Number: Cr1191-051110

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: HEK293T

Transfection: Expression vector containing full-length rat Grm4 cDNA (GenBank Accession Number NM_022666.1) 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 in culture for minimum of two months

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, 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 receptors 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.

Application: Functional assays

Figure 1

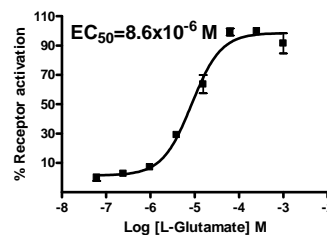


Figure 2

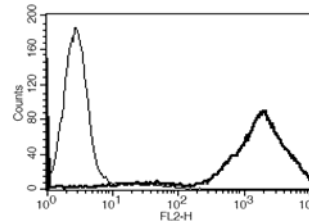


Figure 1. Dose-dependent inhibition of forskolin-stimulated intracellular cAMP level upon treatment with ligand, measured with cAMP HiRange kit (Cisbio 62AM6PEC).

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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www.multispaninc.com
sales@multispaninc.com
support@multispaninc.com

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Phone: +1 (510) 887-0817
Fax: +1 (510) 887-0863
26219 Eden Landing Road
Hayward, CA 94545-3718
U.S.A.