

MULTISCREEN™ MEMBRANE PREPARATION RAT RECOMBINANT S1P4 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: CGr1052-1

Lot Number: CGr1052-1-010719

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

Freeze Medium: Cellbanker 2 (Amsbio 11891)

Host cell: CHO-K1 Gαq5

Transfection: Expression vector containing full-length Rat S1P3 cDNA (Genbank Accession Number NM_001108075.1) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM/F12, 10% FBS, 250 µg/mL hygromycin, 10 µg/mL puromycin

Stability: In progress

Background: S1P4 receptor or Endothelial Differentiation Gene-6 (EDG-6) is receptor for sphingosine-1-phosphate (S1P). S1P is a bioactive lipid produced from the metabolism of sphingomyelin. It is an important constituent of serum and regulates cell growth, survival, migration, differentiation and gene expression. Unlike other members of S1P receptor, which are widely expressed, S1P4 exhibits lymphoid tissue-specific expression. EDG-6 has been implicated in regulation of cell shape and motility.

Application: Functional assay

Figure 1

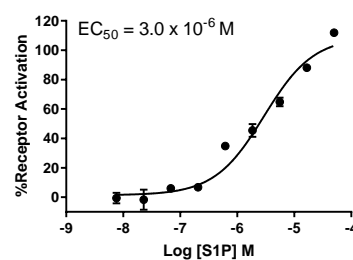
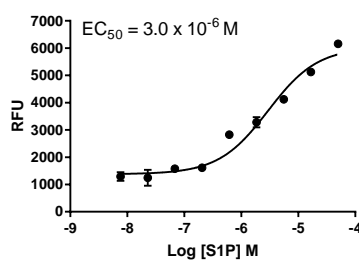


Figure 2

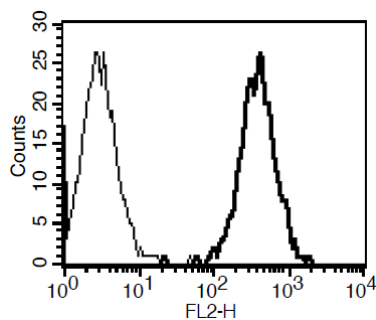


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01).

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:

Clemens *et al.* (2004) Synthesis of benzimidazole based analogues of sphingosine-1-phosphate: discovery of potent, subtype-selective S1P4 receptor agonists. *Bioorg Med Chem Lett* 14:4903-4906.

Takuwa *et al.* (2001) Subtype-specific, differential activities of the EDG family receptors for sphingosine-1-phosphate, a novel lysophospholipid mediator. *Mol Cell Endocrinol* 177:3-11.

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