

MULTISCREEN™ STABLE CELL LINE HUMAN RECOMBINANT S1P1 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: CG1047-1

Lot Number: CG1047-1-010511

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: CHO-K1 Gαq5

Transfection: Expression vector containing full-length human S1P1 cDNA (GenBank Accession Number NM_001400) 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: Stable in culture for minimum of two months

Background: S1P1 (or EDG1) is a widely distributed G-protein-coupled receptor for sphingosine-1-phosphate (S1P), a blood-borne bioactive lipid. Stimulation of the S1P1 receptor triggers a G_i-linked pathway, leading to growth, survival, migration, and morphogenesis. Disruption of the S1P1 gene in mice results in embryonic lethality because of its key role within endothelial cells in regulating the coverage of blood vessels by vascular smooth muscle cells. S1P1 also mediates activation of Rac and functions as a typical chemotactic receptor.

Application: Functional assay

Figure 1

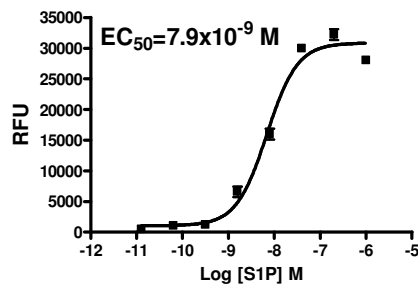


Figure 2

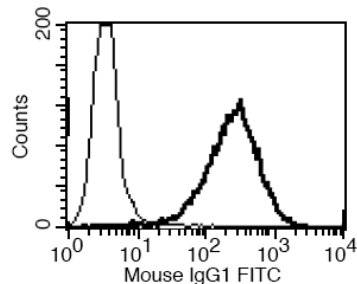


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, monitored with FlexStation. **Figure 2.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

References:

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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Ver. October 2005

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