

## MULTISCREEN™ STABLE CELL LINE RAT RECOMBINANT S1P2 RECEPTOR

### Data sheet

#### PRODUCT INFORMATION

**Catalog Number:** Cr1051-1

**Lot Number:** Cr1051-1-121018

**Quantity:** 1 vial (2 x 10<sup>6</sup>) frozen cells

**Freeze Medium:** Cellbanker 2 (Amsbio 11891)

**Host cell:** CHO-K1

**Transfection:** Expression vector containing full-length rat S1P2 cDNA (Genbank Accession Number: NM\_017192.1) with FLAG tag sequence at N-terminus

**Recommended Storage:** Liquid nitrogen upon receiving

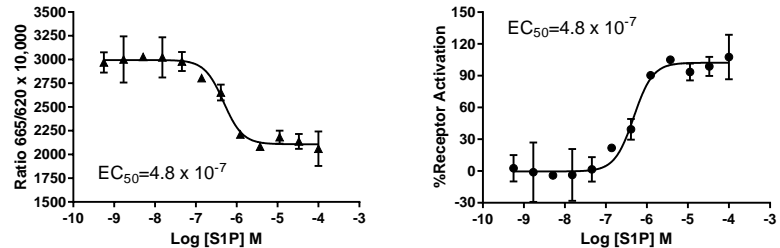
**Propagation Medium:** DMEM/F12, 10% FBS, 10 µg/mL puromycin

**Stability:** In Progress

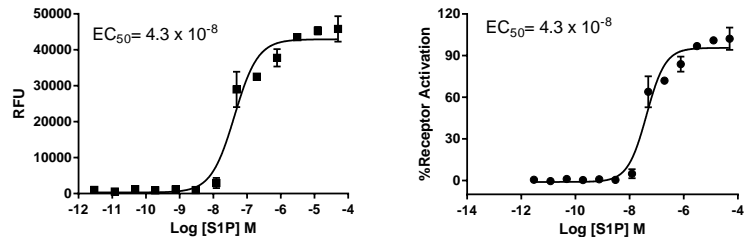
**Background:** DG-5 (Endothelial Differentiation Gene) is a member of G protein coupled sphingosine-1-phosphate receptor family, which includes S1P1 (EDG-1), S1P2 (EDG-5/H218/AGR16), S1P3 (EDG-3), S1P4 (EDG-6), and S1P5 (EDG-8/NRG-1). Sphingosine-1-phosphate (SPP) is a bioactive lipid produced from the metabolism of sphingomyelin. It is an important constituent of serum and regulates cell growth, survival, migration, differentiation and gene expression via its interaction with the S1P family of G-protein coupled receptors. EDG-5 couple to a variety of G proteins i.e. Gi, Gq, G12, and G13 to activate extracellular signal-regulated kinase and mobilize Ca<sup>2+</sup> and activate Elk-1- and serum-response factor (SRF)-driven gene pathway to inhibit tumor cell migration

**Application:** Functional assays

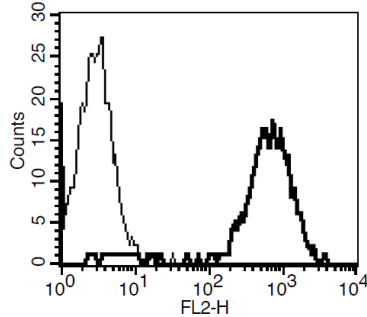
**Figure 1**



**Figure 2**



**Figure 3**



**Figure 1.** Dose-dependent stimulation of intracellular cAMP accumulation upon treatment with ligand, measured with Multiscreen™ TR-FRET cAMP 1.0 No Wash Assay Kit (Multispan MSCM01). **Figure 2.** Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01). **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:

IM et al. (2000) Characterization of a novel phingosine 1-phosphate receptor, Edg-8. J Biol Chem 275:14281-14286.

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