

**MULTISCREEN™ STABLE CELL LINE
HUMAN RECOMBINANT CXCR1 RECEPTOR**

Data sheet

PRODUCT INFORMATION

Catalog Number: C1001a

Lot Number: C1001a-070909

Quantity: 1 vial (2 x 10⁶) frozen cells

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: HEK293T

Transfection: Expression vector containing full-length human CXCR1 cDNA (GenBank Accession Number NM_000634.2) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM, 10% FBS, 1 µg/mL puromycin

Stability: Stable in culture for minimum of two months

Background: CXCR1 is a high affinity interleukin-8 receptor (IL-8RA). Binding of IL-8 to the receptor causes activation of neutrophils. Neutrophils have been implicated in the pathogenesis of many inflammatory lung diseases, including acute respiratory distress syndrome, chronic obstructive pulmonary disease, and asthma. Antagonists of CXCR1 may block *in vivo* trafficking of neutrophils, suggesting that antagonism of IL-8 at the receptor level is a viable therapeutic strategy.

The Multispan HEK-CXCR1 cell line expresses IL8RA cDNA that is identical to GenBank NM_000634.2 except for 2 missense mutations, Met → Arg at position 31 and Arg → Cys at position 335. Both have been reported to be natural variants.

Application: Functional assays

Figure 1

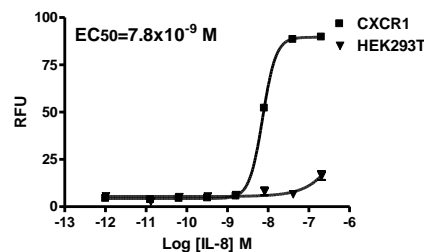


Figure 2

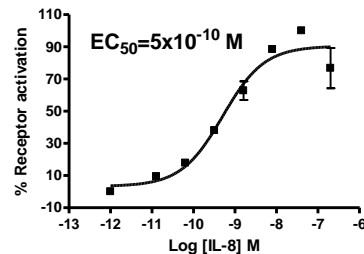


Figure 3

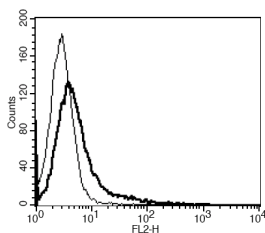


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01). **Figure 2.** Dose-dependent inhibition of forskolin-stimulated intracellular cAMP level upon treatment with ligand, measured with Multiscreen™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

- Pease and Sabroe (2002) The role of interleukin-8 and its receptors in inflammatory lung disease: implications for therapy. *Am J Respir Med* 1:19-25.
- Varney *et al.* (2003) Expression of CXCR1 and CXCR2 receptors in malignant melanoma with different metastatic potential and their role in interleukin-8 (CXCL-8)-mediated modulation of metastatic phenotype. *Clin Exp Metastasis* 20:723-731.

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