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MULTISCREEN^{TM} MEMBRANES
HUMAN RECOMBINANT CX3CR1 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: MC1008

Lot Number: MC1008-11232011

Quantity: 1 vial (8.6mg/ml)

Host cell: HEK293T

Transfection: Expression vector containing full-length human CX3CR1 cDNA (GenBank Accession Number NM_001337) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

Background: CX3CR1, (CX3C-chemokine receptor 1, fractalkine receptor or GPR13) is a receptor for the CX3C chemokine fractalkine. CX3CR1 is expressed in cytotoxic effector lymphocytes, including natural killer cells, cytotoxic T lymphocytes and macrophages. Soluble fractalkine causes migration of these cells, whereas the membrane-bound form captures and enhances the subsequent migration in response to secondary stimulation with other chemokines. Furthermore, stimulation through membrane-bound fractalkine activates natural killer cells, leading to increased cytotoxicity and interferon-gamma production. Fractalkine is involved in the pathogenesis of various clinical disease states or processes, such as atherosclerosis, glomerulonephritis, cardiac allograft rejection and rheumatoid arthritis. In addition, polymorphisms in CX3CR1, which reduce its binding activity to fractalkine, have been reported to increase the risk of HIV disease and to reduce the risk of coronary artery disease.

Application:
Radioligand Binding Assay

Figure 1.

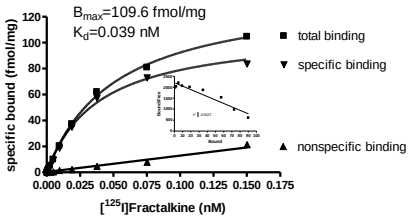

Figure 2.

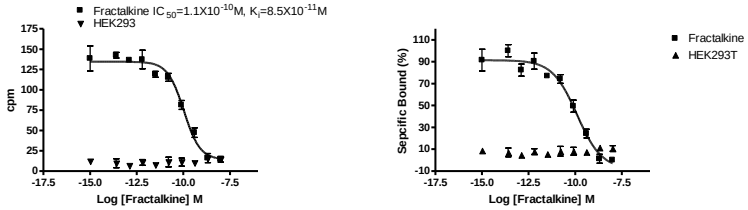

Figure 3

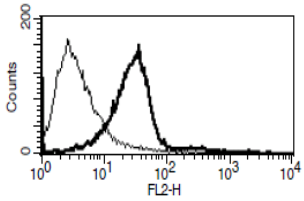

Figure 1. Saturation binding assay curve: Specific binding obtained with CX3CR1 membrane with[^{125}I]Fractalkine (Bmax=110mol/mg protein, Kd=0.04nM). Scatchard plot showing one binding site. **Figure 2. Competition binding assay curve:** Dose dependent competition of Fractalkine for [^{125}I]Fractalkine 0.01nM. **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:

Imai *et al.* (1997) Identification and molecular characterization of fractalkine receptor CX3CR1, which mediates both leukocyte migration and adhesion. *Cell* 91:521-530.

Garin *et al.* (2003) Two novel fully functional isoforms of CX3CR1 are potent HIV coreceptors. *J Immunol* 171:5305-5312.

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

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

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