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MULTISCREEN^{TM} STABLE CELL LINE HUMAN RECOMBINANT CCR4 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: C1012

Lot Number: C1012-061710

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: HEK293T

Transfection: Expression vector containing full-length human CCR4 cDNA (GenBank accession number NM_005508.2) 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: CCR4 (C-C chemokine receptor type 4) is a high affinity receptor for the C-C type chemokines CCL17/TARC and CCL22/MDC. CCR4 receptors express in the thymus, peripheral blood leukocytes and the spleen. CCR4 functions as a chemoattractant homing receptor on circulating memory lymphocytes and as a coreceptor for some primary HIV-2 isolates. In the CNS, CCR4 mediates hippocampal-neuron survival. CCR4 is one of the type 2 T helper cell (Th2) markers. Th2 cells are recruited to the asthmatic lung in response to allergen challenge and CCR4 has been therefore considered as a therapeutic target of lung inflammation, including eosinophilic inflammation of the lung and asthma. In addition, CCR4 has been reported as a potential independent and significant prognostic factor for adult T-cell leukemia/lymphoma (ATLL).

Application: Functional assays

Figure 1

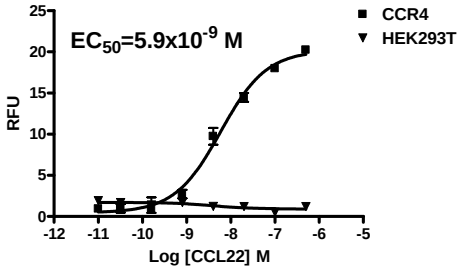

Figure 2

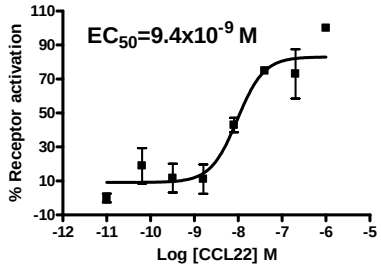

Figure 3

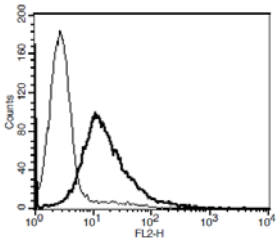

Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, monitored with FlexStation. **Figure 2**. Dose-dependent inhibition of forskolin-stimulated intracellular cAMP level upon treatment with ligand, measured with cAMP HiRange kit (Cisbio 62AM6PEC). **Figure 3.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

References:

Power and Meyer (1995) Molecular cloning and functional expression of a novel CC chemokine receptor cDNA from a human basophilic cell line. *J Biol Chem* 270:19495-19500.

Imai and Baba (1997) The T cell-directed CC chemokine TARC is a highly specific biological ligand for CC chemokine receptor 4. *J Biol Chem* 272:15036-15042.

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