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Product Information

MemDX™ Recombinant Human CCR2b Membrane Protein in Virus-Like Particles (MP-VLPs)

Cat. No.: **MPVLP-006**
This product is for research use only and is not intended for diagnostic use.

This product is recombinant Human CCR2b in VLPs form. This product is produced from mammalian cells by co-expressing the retroviral structural core polyprotein (gag) and the target membrane protein. MP-VLPs display highly-expressed copies of membrane proteins in their native conformation, providing an alternative to membrane protein stable cell lines, membrane preparations, detergent-solubilized proteins and other membrane protein preparation strategies. MP-VLPs can be used for a wide range of applications in antibody production, antibody discovery, antibody characterization, binding assays and functional assays.

Product Specifications

Host Species
Human

Target Protein
CCR2b

Protein Length
Full length

Protein Class
GPCR

TMD
7

Product Description

Application
ELISA; Antibody Production; Antibody Discovery; Antibody Characterization; Binding Assays; Functional Assays

Expression Systems
HEK293 expression system

Protein Format
Membrane Protein-Virus Like Particles (MP-VLPs)

Form
Liquid

Storage
The product should be stored at -20°C or lower. Avoid freeze-thaw cycles.

Target

Target Protein

CCR2b

Full Name

C-C chemokine receptor type 2

Introduction

Key functional receptor for CCL2 but can also bind CCL7 and CCL12. Its binding with CCL2 on monocytes and macrophages mediates chemotaxis and migration induction through the activation of the PI3K cascade, the small G protein Rac and lamellipodium protrusion. Also acts as a receptor for the beta-defensin DEFB106A/DEFB106B. Regulates the expression of T-cell inflammatory cytokines and T-cell differentiation, promoting the differentiation of T-cells into T-helper 17 cells (Th17) during inflammation. Facilitates the export of mature thymocytes by enhancing directional movement of thymocytes to sphingosine-1-phosphate stimulation and up-regulation of S1P1R expression; signals through the JAK-STAT pathway to regulate FOXO1 activity leading to an increased expression of S1P1R. Plays an important role in mediating peripheral nerve injury-induced neuropathic pain. Increases NMDA-mediated synaptic transmission in both dopamine D1 and D2 receptor-containing neurons, which may be caused by MAPK/ERK-dependent phosphorylation of GRIN2B/NMDAR2B. Mediates the recruitment of macrophages and monocytes to the injury site following brain injury.

Alternative Names

C-C CKR-2; CC-CKR-2; CCR-2; CCR2; MCP-1-R; Monocyte chemoattractant protein 1 receptor; CD192

UniProt ID

P41597

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