

# Product Information

## MemDX™ Recombinant Human CCR5 Membrane Protein in Virus-Like Particles (MP-VLPs)

Cat. No.: **MPVLP-007**

This product is for research use only and is not intended for diagnostic use.

This product is recombinant Human CCR5 in VLPs form. This product is produced from mammalian cells by co-expressing the retroviral structural core polypeptide (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

CCR5

#### Protein Length

Full length

#### Protein Class

GPCR

#### TMD

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### 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

CCR5

### Full Name

C-C motif chemokine receptor 5

### Introduction

This gene encodes a member of the beta chemokine receptor family, which is predicted to be a seven transmembrane protein similar to G protein-coupled receptors. This protein is expressed by T cells and macrophages, and is known to be an important co-receptor for macrophage-tropic virus, including HIV, to enter host cells. Defective alleles of this gene have been associated with the HIV infection resistance. The ligands of this receptor include monocyte chemoattractant protein 2 (MCP-2), macrophage inflammatory protein 1 alpha (MIP-1 alpha), macrophage inflammatory protein 1 beta (MIP-1 beta) and regulated on activation normal T expressed and secreted protein (RANTES). Expression of this gene was also detected in a promyeloblastic cell line, suggesting that this protein may play a role in granulocyte lineage proliferation and differentiation. This gene is located at the chemokine receptor gene cluster region. An allelic polymorphism in this gene results in both functional and non-functional alleles; the reference genome represents the functional allele. Two transcript variants encoding the same protein have been found for this gene.

### Alternative Names

CKR5; CCR-5; CD195; CKR-5; CCCKR5; CMKBR5; IDDM22; CC-CKR-5; C-C chemokine receptor type 5; C-C motif chemokine receptor 5 A159A; HIV-1 fusion coreceptor; chemokine (C-C motif) receptor 5; chemokine receptor CCR5; chemokine receptor CCR5 Delta32; chemr13

### Gene ID

[1234](#)

### UniProt ID

[P51681](#)