

# Product Information

## Recombinant Anti-Human CXCR4 Single Domain Antibody

Cat. No.: **MOM-18717**

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

### Antigen Description

Receptor for the C-X-C chemokine CXCL12/SDF-1 that transduces a signal by increasing intracellular calcium ions levels and enhancing MAPK1/MAPK3 activation. Acts as a receptor for extracellular ubiquitin; leading to enhance intracellular calcium ions and reduce cellular cAMP levels. Involved in haematopoiesis and in cardiac ventricular septum formation. Plays also an essential role in vascularization of the gastrointestinal tract, probably by regulating vascular branching and/or remodeling processes in endothelial cells. Could be involved in cerebellar development. In the CNS, could mediate hippocampal-neuron survival. Acts as a coreceptor (CD4 being the primary receptor) for HIV-1 X4 isolates and as a primary receptor for some HIV-2 isolates. Promotes Env-mediated fusion of the virus.

### Specific Activity

Tested positive against native human antigen.

### Target

CXCR4

### Immunogen

The details of the immunogen for this antibody are not available.

### Source

Llama

### Species Reactivity

Human

### Type

Llama VHH

### Expression Host

E.coli

### Storage

Store at -20°C for long-term storage. Store at 2-8°C for up to one month. Avoid freeze/thaw cycles.

## ANTIGEN GENE INFORMATION

### Gene Name

[CXCR4 chemokine \(C-X-C motif\) receptor 4 \[ Homo sapiens \]](#)

### Official Symbol

CXCR4

### Synonyms

CXCR4; chemokine (C-X-C motif) receptor 4; chemokine (C X C motif), receptor 4 (fusin); C-X-C chemokine receptor type 4; CD184; D2S201E; fusin; HM89; HSY3RR; LESTR; NPY3R; NPYR; NPYY3R; CXCR-4; CXCR-4; CD184 antigen; SDF-1 receptor; neuropeptide Y receptor Y3; seven transmembrane helix receptor; stromal cell-derived factor 1 receptor; lipopolysaccharide-associated protein 3; seven-transmembrane-segment receptor, spleen; leukocyte-derived seven transmembrane domain receptor; leukocyte-derived seven-transmembrane-domain receptor; FB22; LAP3; LCR1; WHIM; NPYRL

**Gene ID**

[7852](#)

**mRNA Refseq**

[NM\\_001008540](#)

**Protein Refseq**

[NP\\_001008540](#)

**MIM**

[162643](#)

**UniProt ID**

P61073

**Chromosome Location**

2q21

**Pathway**

Axon guidance, organism-specific biosystem; Axon guidance, conserved biosystem; Binding and entry of HIV virion, organism-specific biosystem; CXCR4-mediated signaling events, organism-specific biosystem; Chemokine receptors bind chemokines, organism-specific biosystem; Chemokine signaling pathway, organism-specific biosystem; Chemokine signaling pathway, conserved biosystem.

**Function**

C-X-C chemokine receptor activity; G-protein coupled receptor activity; actin binding; coreceptor activity; myosin light chain binding; protein binding; receptor activity; signal transducer activity; ubiquitin binding; ubiquitin protein ligase binding