

CXCR3 Antibody (Center) Blocking peptide Synthetic peptide

Catalog # BP10170c

Specification

CXCR3 Antibody (Center) Blocking peptide - Product Information

Primary Accession Other Accession <u>P49682</u> <u>NP_001495.1</u>, <u>NP_001136269.1</u>

CXCR3 Antibody (Center) Blocking peptide - Additional Information

Gene ID 2833

Other Names C-X-C chemokine receptor type 3, CXC-R3, CXCR-3, CKR-L2, G protein-coupled receptor 9, Interferon-inducible protein 10 receptor, IP-10 receptor, CD183, CXCR3, GPR9

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CXCR3 Antibody (Center) Blocking peptide - Protein Information

Name CXCR3

Synonyms GPR9

Function

[Isoform 1]: Receptor for the C-X-C chemokine CXCL9, CXCL10 and CXCL11 and mediates the proliferation, survival and angiogenic activity of human mesangial cells (HMC) through a heterotrimeric G- protein signaling pathway (PubMed:12782716). Binds to CCL21. Probably promotes cell chemotaxis response. [Isoform 3]: Mediates the activity of CXCL11.

Cellular Location [Isoform 1]: Cell membrane; Multi-pass membrane protein

Tissue Location

Isoform 1 and isoform 2 are mainly expressed in heart, kidney, liver and skeletal muscle. Isoform 1 is also expressed in placenta. Isoform 2 is expressed in endothelial cells. Expressed in T-cells (at protein level).



CXCR3 Antibody (Center) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

<u>Blocking Peptides</u>

CXCR3 Antibody (Center) Blocking peptide - Images

CXCR3 Antibody (Center) Blocking peptide - Background

This gene encodes a G protein-coupled receptor withselectivity for three chemokines, termed IP10(interferon-g-inducible 10 kDa protein), Mig (monokine induced byinterferon-g) and I-TAC (interferon-inducible T cella-chemoattractant). IP10, Mig and I-TAC belong to the structuralsubfamily of CXC chemokines, in which a single amino acid residueseparates the first two of four highly conserved Cys residues.Binding of chemokines to this protein induces cellular responsesthat are involved in leukocyte traffic, most notably integrinactivation, cytoskeletal changes and chemotactic migration.Inhibition by Bordetella pertussis toxin suggests thatheterotrimeric G protein of the Gi-subclass couple to this protein.Signal transduction has not been further analyzed but may includethe same enzymes that were identified in the signaling cascadeinduced by other chemokine receptors. As a consequence ofchemokine-induced cellular desensitization(phosphorylation-dependent receptor internalization), cellularresponses are typically rapid and short in duration. Cellularresponsiveness is restored after dephosphorylation of

rapid and short in duration. Cellularresponsiveness is restored after dephosphorylation of intracellularreceptors and subsequent recycling to the cell surface. This geneis prominently expressed in in vitro cultured effector/memory Tcells, and in T cells present in many types of inflamed tissues. Inaddition, IP10, Mig and I-TAC are commonly produced by local cellsin inflammatory lesion, suggesting that this gene and itschemokines participate in the recruitment of inflammatory cells. Therefore, this protein is a target for the development of smallmolecular weight antagonists, which may be used in the treatment ofdiverse inflammatory diseases. Multiple transcript variantsencoding different isoforms have been found for this gene.

CXCR3 Antibody (Center) Blocking peptide - References

Zhou, J., et al. J. Exp. Med. 207(9):1951-1966(2010)Wang, Y., et al. J. Hum. Genet. 55(8):490-494(2010)Schuurhof, A., et al. Pediatr. Pulmonol. 45(6):608-613(2010)Miekus, K., et al. Folia Histochem. Cytobiol. 48(1):104-111(2010)Ohri, C.M., et al. BMC Cancer 10, 172 (2010) :