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CCR5 Antibody

Catalog # ASC10007

Product Information

Application	WB, E, IHC-P
Primary Accession	P51681
Other Accession	AAB57793, 2104520
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	40524
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	CCR5 antibody can be used for Western blot at 1 g/mL. CCR5 antibody can also detect CCR5 by immunohistochemistry at 20 g/mL.

Additional Information

Gene ID	1234
Other Names	CCR5 Antibody: CKR5, CCR-5, CD195, CKR-5, CCCKR5, CMKBR5, IDDM22, CC-CKR-5, C-C chemokine receptor type 5, CHEMR13, C-C CKR-5, chemokine (C-C motif) receptor 5
Target/Specificity	CCR5;
Reconstitution & Storage	CCR5 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	CCR5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CCR5 (HGNC:1606)
Synonyms	CMKBR5
Function	Receptor for a number of inflammatory CC-chemokines including CCL3/MIP-1-alpha, CCL4/MIP-1-beta and RANTES and subsequently transduces a signal by increasing the intracellular calcium ion level. May play a role in the control of granulocytic lineage proliferation or differentiation. Participates in T-lymphocyte migration to the infection site by acting as a chemotactic receptor (PubMed:30713770).

Cellular Location	Cell membrane; Multi-pass membrane protein
Tissue Location	Highly expressed in spleen, thymus, in the myeloid cell line THP-1, in the promyeloblastic cell line KG-1a and on CD4+ and CD8+ T-cells. Medium levels in peripheral blood leukocytes and in small intestine. Low levels in ovary and lung.

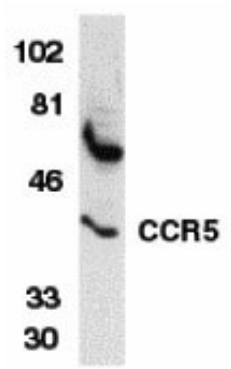
Background

CCR5 Antibody: Human immunodeficiency virus (HIV) and related virus require coreceptors, in addition to CD4, to infect target cells. Some G protein-coupled receptors including CCR5, CXCR4, CCR3, CCR2b and CCR8 in the chemokine receptor family, and four new human molecules GPR15, STRL33, GPR1 and V28 were recently identified as HIV coreceptors. Among them, CCR5 (CC-CKR-5) is a principal coreceptor for macrophage- and dual-tropic HIV-1 strains fusion and entry of human white blood cells. CCR5 is required for the infection by HIV-1, HIV-2, and SIV. The beta-chemokines RANTES, MIP-alpha and MIP-beta are the ligands for CCR5 and prevent infection by M-tropic HIV-1. CXC5 associates with the surface CD4-gp120 of HIV complex and leads to membrane fusion and virus entry of target cells. The amino-terminal domain and the extracellular loops of CCR5 serve as HIV biding sites. CCR5 messenger RNA is expressed in lymphoid organs and monocytes.

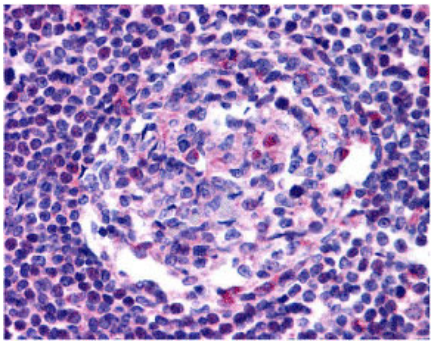
References

Dimitrov, DS. Cell 1997; 91:721-30
Littman, DR. Cell 1998; 93:677-80
Deng, H, et al. Nature 1996; 381:661-6
Dragic, T, et al. Nature 1996; 381:667-73

Images



Western blot analysis of CCR5 in THP-1 whole cell lysate with CCR5 antibody at 1 µg/mL.



Immunohistochemistry of CCR5 in human lymph node tissue with CCR5 antibody at 20 µg/mL.