

Summary

Production Name	CKR-5 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	IHC,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	CCR5
Alternative Names	CCR5; CMKBR5; C-C chemokine receptor type 5; C-C CKR-5; CC-CKR-5; CCR-5; CCR5; CHEMR13; HIV-1 fusion coreceptor; CD antigen CD195
Gene ID	1234.0
SwissProt ID	P51681.The antiserum was produced against synthesized peptide derived from human CCR5. AA range:292-341

Application

Dilution Ratio	IHC 1:100-1:300 ELISA: 1:5000
Molecular Weight	41kD

Background

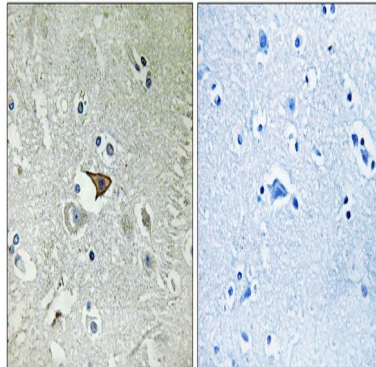
This gene encodes a member of the beta chemokine receptor family, which is predicted to be a seven transmembrane protein similar to G protein-coupled receptors. This protein is expressed by T cells and macrophages, and is known to be an important co-receptor for macrophage-tropic virus, including HIV, 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 chemokidisease:Genetic variation in CCR5 is associated with susceptibility to insulin-dependent diabetes mellitus type 2 (IDDM2) [MIM:612522]. IDDM is caused by the body's own immune system which destroys the insulin-producing beta cells in the pancreas. Classical features are polydipsia, polyphagia and polyuria, due to hyperglycemia-induced osmotic diuresis.,function:Receptor for a number of inflammatory CC-chemokines including MIP-1-alpha, 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. Acts as a coreceptor (CD4 being the primary receptor) for HIV-1 R5 isolates.,online information:CC chemokine receptors entry,online information:CCR5 receptor entry,polymorphism:Ser-60 variant, a naturally occurring mutation in a conserved residue in the first intracellular domain of CCR5, results in reduced amounts of the protein in the membrane and consequently may be associated with reduced susceptibility to infection by microbes that depend on these molecules as their receptors.,polymorphism:Variations in CCR5 are associated with resistance or susceptibility to immunodeficiency virus type 1 (resistance or susceptibility to HIV-1) [MIM:609423]. Variations in CCR5 gene also influence the rate of progression to AIDS after infection.,polymorphism:Variations in CCR5 are associated with susceptibility to West Nile virus (WNV) infection [MIM:610379].,PTM:O-glycosylated, but not N-glycosylated. Ser-6 appears to be the major site. Also sialylated glycans present which contribute to chemokine binding. Thr-16 and Ser-17 may also be glycosylated and, if so, with small moieties such as a T-antigen.,PTM:Palmitoylation in the C-terminal is important for cell surface expression, and to a lesser extent, for HIV entry.,PTM:Phosphorylation on serine residues in the C-terminal is stimulated by binding CC chemokines especially by APO-RANTES.,PTM:Sulfated on at least 2 of the N-terminal tyrosines. Sulfation contributes to the efficiency of HIV-1 entry and is required for efficient binding of the chemokines, CCL3 and CCL4.,similarity:Belongs to the G-protein coupled receptor 1 family.,subunit:Interacts with PRAF2. Interacts with HIV-1 surface protein gp120. Efficient ligand binding to CCL3/MIP-1alpha and CCR4/MIP-1beta requires sulfation, O-glycosylation and sialic acid modifications. Glycosylation on Ser-6 is required for efficient binding of CCL4. Interacts with ADRBK1.,tissue specificity: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.,

Research Area

Cytokine-cytokine receptor interaction;Chemokine;Endocytosis;

Image Data

Product Name: CKR-5 Rabbit Polyclonal Antibody
Catalog #: APRab08871



Immunohistochemistry analysis of paraffin-embedded human brain tissue, using CCR5 Antibody. The picture on the right is blocked with the synthesized peptide.

Note

For research use only.