

Rabbit Polyclonal Anti-CCR3 antibody

Catalog Number: CCR3-301AP

Lot Number:

General Information

Product	CCR3 Antibody Affinity Purified
Description	C-C chemokine receptor type 3 Antibody Affinity Purified
Accession #	Uniprot: P51677
Verified Applications	ELISA, WB
Species Cross Reactivity	Human, Monkey
Host	Rabbit
Immunogen	Synthetic peptide taken within amino acid region 1-50 on human CCR3 protein.
Alternative Nomenclature	B Chemokine Receptor antibody, C C chemokine receptor type 3 antibody, C C CKR 3 antibody, CD 193 antibody, Chemokine (CC) Receptor 1 Like 2 antibody, CKR3 antibody, CMKB R3 antibody, CMKBR1L2 antibody, Eosinophil CC Chemokine Receptor 3 antibody, Eosinophil Eotaxin Receptor antibody, Macrophage inflammatory protein 1 alpha receptor like 2 antibody, MGC102841 antibody, MIP1 Alpha RL2 antibody

Physical Properties

Quantity	100 µg
Volume	200 µl
Form	Affinity Purified Immunoglobulins
Immunoglobulin & Concentration	0.60-0.70 mg/ml IgG in antibody stabilization buffer
Storage	Store at -20°C for long term storage.

Recommended Dilutions

DOT Blot	1:10,000
ELISA	1:10,000
Western Blot	1:500

Related Products

Catalog

FITC-Conjugated	CCR3-FITC
Antigenic Blocking Peptide	P-CCR3
Western Blot Positive Control	PC-CCR3

Overview:

Chemokine receptors represent a subfamily of ~20 GPCRs that were originally identified by their roles in immune cell trafficking. Macrophage inflammatory protein-1 alpha (MIP-1 alpha) and RANTES, members of the beta chemokine family of leukocyte chemo-attractants, bind to a common seven-transmembrane-domain human receptor. Chemokines (Chemo-attractant Cytokines) are small peptides that are potent activators and chemo-attractants for leukocyte subpopulations and other non-hemopoietic cells. Chemokine receptors (CCR) belong to the superfamily of G protein-coupled receptors (GPCR), which regulate the trafficking and activation of leukocytes, and operate as co-receptors in the entry of HIV-1 and directing the proliferation and migration of immature neurons, glia and their precursors (1). Furthermore, chemokine receptors participate in the etiology and progression of various brain disorders, including AIDS dementia, neuro-inflammatory disease and neuroplasia, making them important potential therapeutic targets in these cases. Induction of chemokines and infiltration of chemokine receptor-bearing cells has also been shown in a variety of animal models of renal diseases, as well as in human diseases and allograft rejection (2).

Eosinophil eotaxin is the ligand for CCR3. Upon activation, CCR3 undergoes degranulation, chemotaxis, and exhibits Ca²⁺ changes in response to human CC chemokine macrophage inflammatory protein-1 alpha (MIP1alpha), RANTES and monocyte chemo-attractant protein MCP3 (MCP-3). CCR3 is most closely related to CCR1. Activation of CCR3 leads to selective recruitment of eosinophils to the site of inflammation (3). CCR3 is a multi-pass membrane protein, containing 7TMDs with apparent MW of 46 kDa (373 aa) expressed on many different blood cells. The CCR2 protein has putative N-glycosylation sites near the extra cellular N-terminal end of the proteins. The protein has a large 3rd intra cellular loop which interacts with G-proteins. The short carboxy - terminal is intracellular and has putative post-translational sites. Over expression of CCR3 along with its ligand appears to be characteristics of ulcerative colitis. The production of CCR3 ligands by human colonic epithelial cells suggests further that the epithelium can play a role in modulating pathological T cell-mediated mucosal inflammation.

The Anti-CCR3-selective antibodies were generated against conserved but unique sequences from N-terminal region of human CCR3 receptor proteins. The peptide sequence resides between aa 1-50 aa of human CCR3 and are unique to CCR3 protein. Antibodies generated against this peptide are specific for CCR3, the CCR3 peptide antibodies are affinity purified over immobilized antigen based chromatography, and the purified immunoglobulins are stabilized in antibody stabilization buffer. The affinity purified antibodies are also conjugated to FITC and biotin for direct applications in IHC and cell sorting experiments. FabGennix Int. Inc., also provide limited quantities of antigenic blocking peptides for CCR3 antibodies. Antibodies to CCR3 will label CCR3 protein in humans, chimpanzee, and monkey receptor in different protocols. The antibodies will not label rat and mouse protein. Limited quantities of antigenic blocking peptide and Western blot positive control for CCR3 antibodies are also available in ready-to-use buffer for SDS-PAGE and western blotting experiments.

References:

1. Tran PB, Miller RJ. Nat Rev Neurosci. 2003 4:444-55
2. Segerer S. Am J Kidney Dis. 2003 41, :S15-8.
3. Combadiere C, Ahuja SK, Murphy PM. Cloning and functional expression of a human eosinophil CC chemokine receptor. J Biol Chem. 1995 Jul
4. Mulder KW, Brenkman AB, Inagaki A, van den Broek NJ, Timmers HT. Regulation of histone H3K4 tri-methylation and PAF complex recruitment by The Ccr4-Not complex. Nucleic Acids Res. 2007 Mar 28; [Epub ahead of print]

* For users who may require large amounts of the products listed above, please inquire about bulk material discounts.
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