

CCR2 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP20915c

Specification

CCR2 Antibody (C-term) - Product Information

Application	WB,E
Primary Accession	<u>P41597</u>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG

CCR2 Antibody (C-term) - Additional Information

Gene ID 729230

Other Names

C-C chemokine receptor type 2, C-C CKR-2, CC-CKR-2, CCR-2, CCR2, Monocyte chemoattractant protein 1 receptor, MCP-1-R, CD192, CCR2, CMKBR2

Target/Specificity

This CCR2 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 336-369 amino acids from the C-terminal region of human CCR2.

Dilution WB~~1:2000 E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

CCR2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

CCR2 Antibody (C-term) - Protein Information

Name CCR2

Synonyms CMKBR2

Function Key functional receptor for CCL2 but can also bind CCL7, and CCL12



(PubMed:<u>23408426</u>, PubMed:<u>38157855</u>, PubMed:<u>8048929</u>, PubMed:<u>8146186</u>). Also transduces signaling mediated by CCL13 (PubMed:<u>38157855</u>). Its binding with CCL2 on monocytes and macrophages mediates chemotaxis and migration induction through the activation of the PI3K cascade, the small G protein Rac and lamellipodium protrusion (PubMed:<u>38157855</u>). Also acts as a receptor for the beta-defensin DEFB106A/DEFB106B (PubMed:<u>23938203</u>). Regulates the expression of T-cell inflammatory cytokines and T-cell differentiation, promoting the differentiation of T-cells into T-helper 17 cells (Th17) during inflammation (By similarity). Facilitates the export of mature thymocytes by enhancing directional movement of thymocytes to sphingosine-1-phosphate stimulation and up-regulation of S1P1R expression; signals through the JAK-STAT pathway to regulate FOXO1 activity leading to an increased expression of S1P1R (By similarity). Plays an important role in mediating peripheral nerve injury-induced neuropathic pain (By similarity). Increases NMDA-mediated synaptic transmission in both dopamine D1 and D2 receptor-containing neurons, which may be caused by MAPK/ERK-dependent phosphorylation of GRIN2B/NMDAR2B (By similarity). Mediates the recruitment of macrophages and monocytes to the injury site following brain injury (By similarity).

Cellular Location

Cell membrane; Multi-pass membrane protein. Note=The chemoattractant receptors are distributed throughout the cell surface; after stimulation with a ligand, such as CCL2, they are rapidly recruited into microdomain clusters at the cell membrane.

Tissue Location

Expressed by monocytes and IL2-activated NK cells (PubMed:9058802). Abundantly expressed on CD14+/CD16- monocytes and weakly on CD14+/CD16+ monocytes, type 2 dendritic cells (DCs) and plasmacytoid DCs (at protein level) (PubMed:38157855)

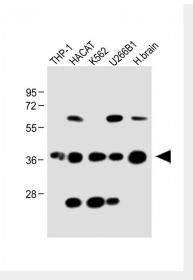
CCR2 Antibody (C-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

CCR2 Antibody (C-term) - Images





All lanes : Anti-CCR2 Antibody (C-term) at 1:2000 dilution Lane 1: THP-1 whole cell lysate Lane 2: HACAT whole cell lysate Lane 3: K562 whole cell lysate Lane 4: U266B1 whole cell lysate Lane 5: Human brain lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 42 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

CCR2 Antibody (C-term) - Background

Receptor for the CCL2, CCL7 and CCL13 chemokines. Transduces a signal by increasing intracellular calcium ion levels. Alternative coreceptor with CD4 for HIV-1 infection.

CCR2 Antibody (C-term) - References

Charo I.F., et al. Proc. Natl. Acad. Sci. U.S.A. 91:2752-2756(1994). Yamagami S., et al. Biochem. Biophys. Res. Commun. 202:1156-1162(1994). Wong L.-M., et al.J. Biol. Chem. 272:1038-1045(1997). Ota T., et al.Nat. Genet. 36:40-45(2004). Muzny D.M., et al.Nature 440:1194-1198(2006).