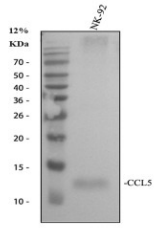
CCL5 Antibody / RANTES Polyclonal Antibody (R31958)

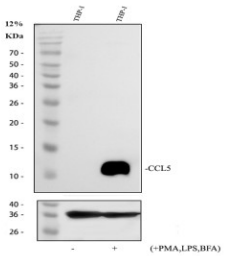
Catalog No.	Formulation	Size
R31958	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P13501
Applications	Western blot: 0.5-1ug/ml ELISA: 0.1-0.5ug/ml (human protein tested); request BSA-free format for coating
Limitations	This CCL5 Antibody / RANTES Polyclonal Antibody is available for research use only.



CCL5 Antibody by WB in human NK-92 cells. Western blot analysis of human NK-92 natural killer cell lysate using CCL5 Antibody at 0.5 ug/ml. A total of 30 ug protein was separated on a 12% SDS-PAGE gel under reducing conditions and transferred to a nitrocellulose membrane. A distinct immunoreactive band is observed at approximately 12 kDa, slightly above the predicted molecular weight of 10 kDa. The RANTES Polyclonal Antibody recognizes a chemokine involved in leukocyte recruitment, inflammatory signaling, and immune cell communication.



CCL5 Antibody by WB in untreated and stimulated THP-1 cells. Western blot analysis of human THP-1 whole-cell lysates using CCL5 Antibody at 0.5 ug/ml. Lane 1 contains untreated cells, while lane 2 contains cells stimulated with PMA, LPS, and brefeldin A. Each lane was loaded with 30 ug protein and separated on a 12% SDS-PAGE gel under reducing conditions. A prominent band appears at approximately 12 kDa following stimulation, compared with the predicted CCL5 molecular weight of 10 kDa. The lower panel shows a loading control near 36 kDa. This RANTES Polyclonal Antibody detects an inflammatory chemokine associated with immune cell activation.

Description

CCL5 Antibody recognizes C-C motif chemokine ligand 5 (CCL5), commonly known as RANTES, a secreted signaling protein involved in leukocyte recruitment and inflammatory responses. RANTES stands for Regulated on Activation, Normal T Cell Expressed and Secreted, reflecting its association with activated T lymphocytes. CCL5 belongs to the CC chemokine family and attracts monocytes, memory T cells, eosinophils, and natural killer cells. The RANTES Polyclonal Antibody targets a protein involved in coordinating innate and adaptive immune responses.

The human CCL5 gene is located on chromosome 17q12 and encodes a 91-amino-acid precursor with a calculated molecular weight of approximately 10 kDa. Cleavage of its signal peptide produces a mature chemokine of approximately 8 kDa. Conserved cysteine residues contribute to the characteristic CC chemokine structure, while interactions with cell-surface glycosaminoglycans help establish gradients that direct immune cell migration.

CCL5 signals primarily through the G protein-coupled receptors CCR1, CCR3, and CCR5. Receptor activation regulates chemotaxis, cytoskeletal rearrangement, cellular adhesion, and immune cell activation. These activities contribute to leukocyte trafficking during infection, inflammation, and tissue repair. CCL5 also participates in antiviral immunity through its interaction with CCR5, a coreceptor used by certain HIV-1 strains for cellular entry.

CCL5 expression increases in response to inflammatory cytokines and immune activation signals. Elevated levels have been associated with autoimmune disorders, chronic inflammation, infectious diseases, and cancer. Within tumor microenvironments, CCL5 influences immune cell infiltration, macrophage recruitment, and interactions between malignant and stromal cells. Depending on the biological context, these effects may support antitumor immunity or contribute to tumor progression. The RANTES Polyclonal Antibody is relevant to research examining chemokine signaling and inflammatory regulation.

Research involving CCL5 provides insight into T cell activation, macrophage migration, antiviral responses, and immune cell communication. Understanding its interactions with chemokine receptors contributes to studies of inflammatory disease mechanisms and immune regulation. NSJ Bioreagents offers antibodies targeting chemokines and other mediators of immune signaling. A CCL5 Antibody provides a research tool for examining RANTES expression, leukocyte recruitment, and chemokine receptor signaling.

Explore our Immunology Antibodies collection for additional antibodies targeting chemokines, cytokines, immune receptors, and proteins involved in inflammatory signaling.

Application Notes

Optimal dilution of the CCL5 Antibody / RANTES Polyclonal Antibody should be determined by the researcher.

Immunogen

Amino acids 26-91 of human C-C motif chemokine 5 were used as the immunogen for the CCL5 antibody.

Storage

After reconstitution, the CCL5 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

RANTES antibody, Regulated on Activation Normal T Cell Expressed and Secreted antibody, C-C Motif Chemokine Ligand 5 antibody, Chemokine CCL5 antibody, Small Inducible Cytokine A5 antibody, T Cell-Specific Protein P228 antibody

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