SANTA CRUZ BIOTECHNOLOGY, INC.

RANTES (C-12): sc-373984

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Structurally, C-C or β-chemokines are characterized by a set of conserved, adjacent cysteines. Members of this family include MCP-1, MCP-2, MCP-3, MIP-1α, MIP-1β, RANTES and I-309. RANTES (regulated upon activation, normal T cell expressed and secreted) is expressed by platelets, eosinophils, fibroblasts, macrophages, endothelial cells and T lymphocytes. Consistent with its belonging to the chemokine family, RANTES exhibits strong chemoattractant activity towards monocytes and NK cells. I-309 was initially identified as a factor present in γ/δ T lymphocytes. I-309 cDNA encodes a protein 73 amino acids in length with one potential N-linked glycosylation site. Unlike the other members of the C-C family, I-309 does not induce chemotaxis in natural killer (NK) cells.

REFERENCES

1. Miller, M.D., et al. 1989. A novel polypeptide secreted by activated human T lymphocytes. J. Immunol. 143: 2907-2916.
2. Wells, T.N., et al. 1996. Selectivity and antagonism of chemokine receptors. J. Leukoc. Biol. 59: 53-60.
3. Taub, D.D., et al. 1996. β-chemokines costimulate lymphocyte cytolysis, proliferation and lymphokine production. J. Leukoc. Biol. 59: 81-89.
4. Wang, J.H., et al. 1996. Expression of RANTES by human bronchial epithelial cells *in vitro* and *in vivo* and the effect of corticosteroids. Am. J. Respir. Cell Mol. Biol. 14: 27-35.
5. Ying, S., et al. 1996. Human eosinophils express messenger RNA encoding RANTES and store and release bio-logically active RANTES protein. Eur. J. Immunol. 26: 70-76.

CHROMOSOMAL LOCATION

Genetic locus: CCL5 (human) mapping to 17q12; Ccl5 (mouse) mapping to 11 C.

SOURCE

RANTES (C-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 65-91 at the C-terminus of RANTES of human origin.

PRODUCT

Each vial contains 200 µg IgG_3 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-373984 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

RANTES (C-12) is recommended for detection of RANTES of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for RANTES siRNA (h): sc-44066, RANTES siRNA (m): sc-45573, RANTES shRNA Plasmid (h): sc-44066-SH, RANTES shRNA Plasmid (m): sc-45573-SH, RANTES shRNA (h) Lentiviral Particles: sc-44066-V and RANTES shRNA (m) Lentiviral Particles: sc-45573-V.

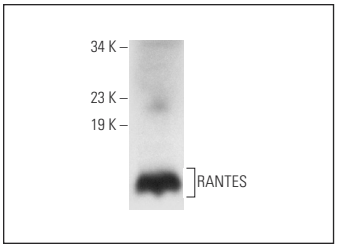
Molecular Weight of RANTES: 8 kDa.

Positive Controls: human platelet extract: sc-363773.

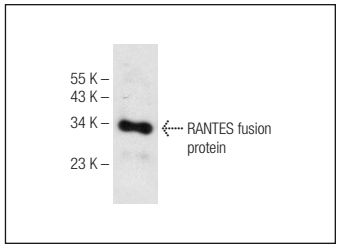
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



RANTES (C-12): sc-373984. Western blot analysis of RANTES expression in human platelet extract.



RANTES (C-12): sc-373984. Western blot analysis of human recombinant RANTES fusion protein.

SELECT PRODUCT CITATIONS

1. Wang, G., et al. 2019. The possible role of PD-1 protein in canoderma iucidum-mediated immunomodulation and cancer treatment. Integr. Cancer Ther. 18: 1534735419880275.
2. Yan, J., et al. 2020. CCR1 activation promotes neuroinflammation through CCR1/TPR1/ERK1/2 signaling pathway after intracerebral hemorrhage in mice. Neurotherapeutics. E-published.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.