SANTA CRUZ BIOTECHNOLOGY, INC.

RANTES (A-4): sc-365826

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.

CHROMOSOMAL LOCATION

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

SOURCE

RANTES (A-4) 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_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RANTES (A-4) is available conjugated to agarose (sc-365826 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-365826 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365826 PE), fluorescein (sc-365826 FITC), Alexa Fluor® 488 (sc-365826 AF488), Alexa Fluor® 546 (sc-365826 AF546), Alexa Fluor® 594 (sc-365826 AF594) or Alexa Fluor® 647 (sc-365826 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365826 AF680) or Alexa Fluor® 790 (sc-365826 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-365826 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

RANTES (A-4) 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

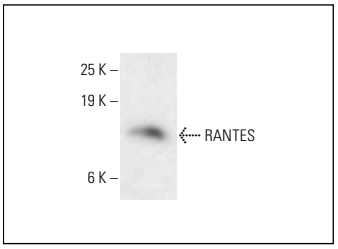
Suitable for use as control antibody for RANTES siRNA (h): sc-44066, RANTES siRNA (m): sc-45573, RANTES shRNA Plasmid (h): sc-44066-SH, RANTES shRNA Plasmid (m): sc-45573-SH, RANTES shRNA (h) Lentiviral Particles: sc-44066-V and RANTES shRNA (m) Lentiviral Particles: sc-45573-V.

Molecular Weight of RANTES: 8 kDa.

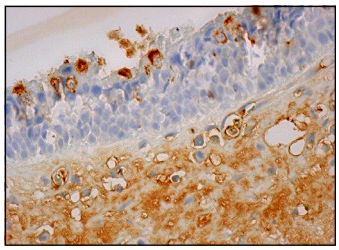
STORAGE

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

DATA



RANTES (A-4): sc-365826. Western blot analysis of RANTES expression in NIH/3T3 whole cell lysate. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.



RANTES (A-4): sc-365826. Immunoperoxidase staining of formalin fixed, paraffin-embedded human nasopharynx tissue showing cytoplasmic staining of subset of respiratory epithelial cells and extracellular staining of connective tissue cells.

SELECT PRODUCT CITATIONS

1. Diao, W., et al. 2019. Astaxanthin protects against renal fibrosis through inhibiting myofibroblast activation and promoting $CD8^+$ T cell recruitment. Biochim. Biophys. Acta Gen. Subj. 1863: 1360-1370.
2. Porwal, A., et al. 2021. Polyherbal formulation Anoac-H suppresses the expression of RANTES and VEGF for the management of bleeding hemorrhoids and fistula. Mol. Med. Rep. 24: 736.
3. Mielcarska, S., et al. 2022. Assessment of the RANTES level correlation and selected inflammatory and pro-angiogenic molecules evaluation of their influence on CRC clinical features: a preliminary observational study. Medicina 58: 203.
4. Jin, K., et al. 2022. Single-cell RNA sequencing reveals the temporal diversity and dynamics of cardiac immunity after myocardial infarction. Small Methods 6: e2100752.
5. Chen, H., et al. 2022. The E3 ubiquitin ligase WWP2 regulates pro-fibrogenic monocyte infiltration and activity in heart fibrosis. Nat. Commun. 13: 7375.
6. Huang, J., et al. 2023. Neural stem cells transplantation combined with ethyl stearate improve PD rats motor behavior by promoting NSCs migration and differentiation. CNS Neurosci. Ther. 29: 1571-1584.
7. Solomon, O.D., et al. 2023. Dynamic intravital imaging reveals reactive vessel-associated microglia play a protective role in cerebral malaria coagulopathy. Sci. Rep. 13: 19526.
8. Wu, H., et al. 2024. A drug-free cardiovascular stent functionalized with tailored collagen supports *in-situ* healing of vascular tissues. Nat. Commun. 15: 735.

RESEARCH USE

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