

Mouse CCL5 (RANTES) Recombinant Protein Carrier-Free

Catalog Number: 34-8960 Also known as: CCL-5

RUO: For Research Use Only. Not for use in diagnostic procedures.



Chemotaxis of mouse CCR5-transfected CHO cell line in response to Mouse CCL5 (RANTES) Recombinant Protein Carrier-Free

Product Information

Contents: Mouse CCL5 (RANTES) Recombinant Protein Carrier-Free

REF Catalog Number: 34-8960

Handling Conditions: For best recovery, quick-spin vial prior to opening. Use in sterile envrioment.

Source: E. coli derived (Ser24-Ser91) accession number NM_013653

Molecular Mass: 8 kDa

Purity: Greater than 98% as determined by SDS-PAGE.

Endotoxin: Less than 0.01 ng/ug of cytokine as determined by the LAL assay. **Bioactivity:** The bioactivity of this protein

was determined by transmigration assay of human monocytes. Maximum chemotaxis is observed at less than or equal to 100 ng/mL. **Formulation:** Sterile liquid: 0.1 M glycine, pH 3.0, 0.22 μm filtered.

Temperature Limitation: Store at less than or equal to -70°C.

- Batch Code: Refer to vial
- Use By: Refer to vial

Description

Mouse CCL-5, or RANTES (regulated on activation normal T cell expressed and secreted), is an 8 kDa monomeric protein that belongs to the CC- family of chemokines. The chemokines in this family share a common g-protein coupled receptor, CCR5, which they bind to through a conserved core region. In humans, CCR5 is also known to be the co-receptor through which the HIV virus enters the cell. This effect is blocked by the binding of RANTES to CCR5, making these proteins potential targets for HIV therapy.

RANTES plays an important role in the immune response by initiating the recruitment of leukocytes to the site of inflammation. It is a chemoattractant for T cells, monocytes, and dendritic cells, and may increase the cytotoxicity and promote proliferation of NK cells. It is reported to be produced by fibroblasts, platelets, and T cells. RANTES is also involved in the progression and metastasis of some forms of cancer, and constitutive expression has been demonstrated in some malignant tumors.



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Human and mouse RANTES share 85% sequence homology and demonstrate cross-species activity.

Applications Reported

Recombinant mouse CCL-5/RANTES is biologically active.

Applications Tested

The bioactivity of this protein was determined by transmigration assay of human monocytes. Maximum chemotaxis is observed at less than or equal to 100 ng/mL.

References

Blanpain C, Doranz BJ, Bondue A, Govaerts C, De Leener A, Vassart G, Doms RW, Proudfoot A, Parmentier M. The core domain of chemokines binds CCR5 extracellular domains while their amino terminus interacts with the transmembrane helix bundle. J Biol Chem. 2003 Feb; 278 (7): 5179-5187

Robertson, M. The role of chemokines in the biology of natural killer cells. J Leukoc Biol. 2002 Feb; 71: 173-183

Rowland-Jones, S. The role of chemokine receptors in HIV infection. Sex Transm Inf. 1999; 75: 148-151

Mrowietz U, Schwenk U, Maune S, Bartels J, Küpper M, Fichtner I, Schröder JM, Schadendorf D. The chemokine RANTES is secreted by melanoma cells and is associated with enhanced tumor formation in nude mice. Br J Cancer. 1999; 79 (7/8): 1025-1031.

Related Products

14-7085 Anti-Mouse CCL5 (RANTES) Purified (R6G9) 14-7993 Anti-Mouse/Rat CCL5 (RANTES) Purified (Polyclonal)