

Human CCL5 / RANTES Protein (His & mucin Tag)

Catalog Number: 10900-H14H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

D17S136E; eoCP; RANTES; SCYA5; SIS-delta; SISd; TCP228

Protein Construction:

A DNA sequence encoding the human RANTES (NP_002976.2) (Met 1-Ser 91) was fused with the C-terminal polyhistidine-tagged human Fractalkine mucin-stalk (Phe 101-Gln 341) at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Ser 24

Molecular Mass:

The recombinant human RANTES/Mucin stalk chimera consists of 318 amino acids and has a predicted molecular mass of 34 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rh RANTES/Mucin stalk chimera is approximately 50-80 kDa due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

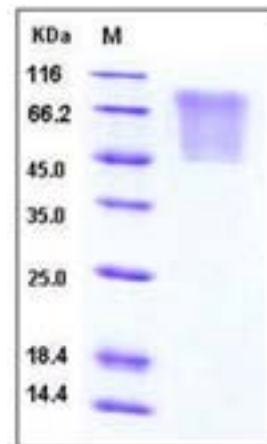
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Chemokines are a family of small chemotactic cytokines, or proteins secreted by cells. Chemokines share the same structure similarities such as small size, and the presence of four cysteine residues in conserved locations in order to form their 3-dimensional shape. Some of the chemokines are considered pro-inflammatory which can be induced to recruit cells of the immune system to a site of infection during an immune response, while others are considered homeostatic and are implied in controlling the migration of cells during normal processes of tissue maintenance and development. There are four members of the chemokine family: C-C chemokines, C chemokines, CXC chemokines and CX3C chemokines. The C-C chemokines have two cysteines nearby the amino terminus. There have been at least 27 distinct members of this subgroup reported for mammals, called C-C chemokine ligands-1 to 28. Chemokine ligand 5(CCL5) is chemotactic for T cells, basophils and eosinophils. Chemokine ligand 5(CCL5) has been considered a HIV-suppressor secreted by CD8+ T cells and other immune cells. Chemokine ligand 5(CCL5) is a key to activating recruit leukocytes into inflammatory sites and in the presence of particular cytokines released by T cells, it can change the NK cells into CHAK cells.

References

- 1.Laing KJ, *et al.* (2004) Chemokines. Developmental and comparative immunology. 28(5): 443-60.
- 2.Cocchi F, *et al.* (1995) Identification of RANTES, MIP-1a, and MIP-1b as the major HIV-suppressive factor produced by CD8+ T cells. Science. 270 (5243): 1811-5.
- 3.Vangelista L, *et al.* (2010) Engineering of Lactobacillus jensenii to secrete RANTES and a CCR5 antagonist analogue as live HIV-1 blockers. Antimicrob. Agents Chemother. 54 (7): 2994-3001.

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