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RANTES/CCL5

Catalog # PVGS1411

Product Information

Primary Accession	P13501
Species	Human
Sequence	Ser24-Ser91
Purity	> 98% as analyzed by SDS-PAGE
Endotoxin Level	
Biological Activity	The EC_{50} value of human RANTES/CCL5 on Ca^{2+} mobilization assay in CHO-K1/Gα15/hCCR1 cells (human Gα15 and human CCR1 stably expressed in CHO-K1 cells) is less than 0.2 □g/ml.
Expression System	HEK 293
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH_2O or PBS up to 100 □g/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

Additional Information

Gene ID	6352
Other Names	C-C motif chemokine 5, EoCP, Eosinophil chemotactic cytokine, SIS-delta, Small-inducible cytokine A5, T cell-specific protein P228, TCP228, T-cell-specific protein RANTES, RANTES(3-68), RANTES(4-68), CCL5, D17S136E, SCYA5
Target Background	Chemokine (C-C motif) ligand 5(CCL5), also known as RANTES (Regulated upon activation, Normal T cell Expressed and presumable Secreted) is a CC-chemokine that can signal through the CCR1, CCR3, CCR5 and US28 (cytomegalovirus receptor) receptors. RANTES is chemotactic for T cells, eosinophils, and basophils, and plays an active role in recruiting leukocytes in inflammatory sites. With the help of specific cytokines (i.e., IL-2 and IFN-γ) that are released by T cells, RANTES induces the proliferation and activation of certain natural-killer (NK) cells to form CHAK (CC-Chemokine-activated killer) cells. RANTES is also an HIV-suppressive factor released from $CD8^+$ T cells. This chemokine has been localized to chromosome 17 in humans. It has the

capability to inhibit certain strains of HIV-1, HIV-2 and simian immunodeficiency virus (SIV).

Protein Information

Name	CCL5
Synonyms	D17S136E, SCYA5
Function	Chemoattractant for blood monocytes, memory T-helper cells and eosinophils. Causes the release of histamine from basophils and activates eosinophils. May activate several chemokine receptors including CCR1, CCR3, CCR4 and CCR5. One of the major HIV-suppressive factors produced by CD8+ T-cells. Recombinant RANTES protein induces a dose-dependent inhibition of different strains of HIV-1, HIV-2, and simian immunodeficiency virus (SIV). The processed form RANTES(3-68) acts as a natural chemotaxis inhibitor and is a more potent inhibitor of HIV-1-infection. The second processed form RANTES(4-68) exhibits reduced chemotactic and HIV-suppressive activity compared with RANTES(1-68) and RANTES(3-68) (PubMed:1380064, PubMed:15923218, PubMed:16791620, PubMed:8525373, PubMed:9516414). May also be an agonist of the G protein-coupled receptor GPR75, stimulating inositol trisphosphate production and calcium mobilization through its activation. Together with GPR75, may play a role in neuron survival through activation of a downstream signaling pathway involving the PI3, Akt and MAP kinases. By activating GPR75 may also play a role in insulin secretion by islet cells (PubMed:23979485).
Cellular Location	Secreted.
Tissue Location	Expressed in the follicular fluid (at protein level). T-cell and macrophage specific.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.