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RANTES/CCL5

Catalog # PVGS1076

Product Information

Primary Accession	P13501
Species	Human
Sequence	Ser24-Ser91
Purity	> 98% as analyzed by SDS-PAGE > 98% as analyzed by HPLC
Endotoxin Level	
Biological Activity	Fully biologically active when compared to standard. The biological activity determined by a chemotaxis bioassay using human peripheral blood monocytes is in a concentration range of 1.0-10.0 ng/ml.
Expression System	E. coli
Theoretical Molecular Weight	7.8 kDa
Formulation	Lyophilized from a 0.2 μm filtered solution in 20 mM PB, pH 7.4, 100 mM NaCl.
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 sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at -70°C or -20°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. 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	CCL5 or RANTES (acronym for Regulated upon Activation, Normal T cell Expressed and presumably Secreted), was initially discovered by subtractive hybridization as a transcript expressed in T cells but not B cells. Eosinophilchemotactic activities released by thrombinstimulated human platelets have also been purified and found to be identical to RANTES. Besides T cells and platelets, RANTES has been reported to be produced by renal tubular epithelium, synovial fibroblasts and selected tumor cells.

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.