

## RANTES/CCL5 Protein, Human (Biotinylated, His-Avi)

Cat. No.:	HY-P700861
Synonyms:	MuRantes; SIS-delta; Scya5; Ccl5; D17S136E; eoCP; RANTES; SCYA5; SISd; TCP228; CCL5
Species:	Human
Source:	E. coli
Accession:	P13501 (S24-S91)
Gene ID:	6352
Molecular Weight:	10.89 kDa

### PROPERTIES

Biological Activity	Immobilized Anti-CCL5 Antibody, hFc Tag at 1µg/ml (100µl/well) on the plate. Dose response curve for Biotinylated Human CCL5, His Tag with the EC <sub>50</sub> of 18.1ng/ml determined by ELISA.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 µm filtered solution of PBS, 0.3%SKL, pH 7.4. Normally 8% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

#### Background

RANTES/CCL5 Protein is a chemoattractant that plays a role in attracting blood monocytes, memory T-helper cells, and eosinophils. It also causes the release of histamine from basophils and activates eosinophils. RANTES can activate several chemokine receptors including CCR1, CCR3, CCR4, and CCR5. It is known to be one of the major HIV-suppressive factors produced by CD8+ T-cells. Recombinant RANTES protein has shown to inhibit different strains of HIV-1, HIV-2, and simian immunodeficiency virus (SIV) in a dose-dependent manner. There are different processed forms of RANTES, such as RANTES(3-68), which acts as a natural chemotaxis inhibitor and is a more potent inhibitor of HIV-1 infection compared to the other processed forms RANTES(4-68) and RANTES(1-68). RANTES may also act as an agonist of the G protein-coupled receptor GPR75, stimulating inositol trisphosphate production and calcium mobilization. It is suggested that RANTES, along with GPR75, may play a role in neuron survival through activation of a downstream signaling pathway involving the PI3, Akt, and MAP kinases. Additionally, by activating GPR75, RANTES may also contribute to insulin secretion by islet cells. RANTES can form homo and heterooligomers with other chemokines and has an interaction with the brown dog tick evasin-4.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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