

## Recombinant Human CCL5 (RANTES) (carrier-free)

<b>Catalog# / Size</b>	580202 / 10 µg 580204 / 25 µg 580206 / 100 µg
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	SIS-delta, T-cell specific protein p288, beta-chemokine RANTES, regulated upon activation, normally T-expressed, and presumably secreted, small inducible cytokine A5.
<b>Description</b>	RANTES is a CC chemokine and directs the migration of leukocytes in immune and inflammatory responses. Increased CCL5/RANTES expression has been associated with a wide range of inflammatory disorders and pathologies. This cytokine has been associated as well with the induction or promotion of cancer (prostate and breast). In the latter situation, RANTES can be angiogenic and also increase the metastatic potential of cancer cells by encouraging cellular migration to sites of its production. CCL5/RANTES also inhibits HIV-1 entry and infection by competing with the virus for CCR5 binding.

### Product Details

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<b>Source</b>	Human RANTES, amino acids Ser24-Ser91 (Accession # NM_002985) was expressed in <i>E. coli</i> .
<b>Molecular Mass</b>	The 68 amino acid recombinant protein has a predicted molecular mass of approximately 7,851 Da. The DTT-reduced protein migrates at approximately 7kDa and the non-reduced protein migrates at approximately 9kDa by SDS-PAGE. The N-terminal amino acid is Serine.
<b>Purity</b>	Purity is >98%, as determined by Coomassie stained SDS-PAGE.
<b>Formulation</b>	0.22 µm filtered protein solution is in 30% Acetonitrile, 0.1% TFA (trifluoroacetic acid)
<b>Endotoxin Level</b>	Endotoxin level is <0.1 EU/µg (<0.01ng/µg) protein as determined by the LAL method.
<b>Concentration</b>	10 and 25 µg sizes are bottled at 200 µg/mL. 100 µg size and larger sizes are lot-specific and bottled at the concentration indicated on the vial. To obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.
<b>Storage &amp; Handling</b>	Unopened vial can be stored between 2°C and 8°C for up to 2 weeks, at -20°C for up to six months, or at -70°C or colder until the expiration date. For maximum results, quick spin vial prior to opening. The protein can be aliquoted and stored at -20°C or colder. Stock solutions can also be prepared at 50 - 100 µg/mL in appropriate sterile buffer, carrier protein such as 0.2 - 1% BSA or HSA can be added when preparing the stock solution. Aliquots can be stored between 2°C and 8°C for up to one week and stored at -20°C or colder for up to 3 months. <b>Avoid repeated freeze/thaw cycles.</b>
<b>Activity</b>	Bioactivity was measured by its property to chemoattract human T cells in a dose-dependent manner. The ED <sub>50</sub> for this effect is 5.0 - 15 ng/mL. Bioactivity was measured by its property to chemoattract BaF3 cells transfected with human CCR5. The ED <sub>50</sub> for this effect is 0.2 - 1.2 ng/mL.
<b>Application</b>	<a href="#">Bioassay</a>
<b>Application Notes</b>	BioLegend carrier-free recombinant proteins provided in liquid format are shipped on blue-ice. Our comparison testing data indicates that when handled and stored as recommended, the liquid format has equal or better stability and shelf-life compared to commercially available lyophilized proteins after reconstitution. Our liquid proteins are verified in-house to maintain activity after shipping on blue ice and are backed by our <a href="#">100% satisfaction guarantee</a> . If you have any concerns, contact us at <a href="mailto:tech@biolegend.com">tech@biolegend.com</a> .

### Antigen Details

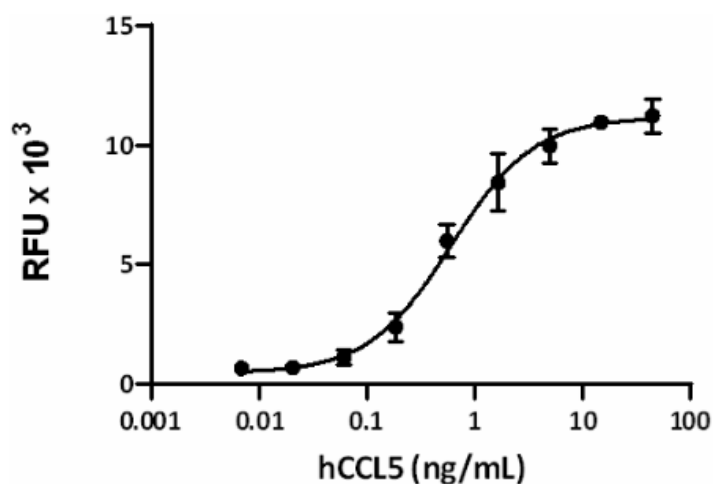
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<b>Distribution</b>	RANTES/CCL5 is secreted by lymphocytes, macrophages, eosinophils, platelets, and fibroblasts. RANTES is expressed by hepatocytes, sinusoidal endothelial cells and biliary epithelium during
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chronic hepatitis C.

<b>Function</b>	RANTES can promote IL-2 and IL-5 expression in human T cells, and the expression of IL-6 and IL-8 in fibroblasts from patients with RA. RANTES modulates the LPS-induced IL-6 and TNF $\alpha$ in peripheral blood monocytes; this modulation is through the induction of IL-10 by RANTES.
<b>Interaction</b>	RANTES/CCL5 is chemoattractant for memory and activated T cells, monocytes, dendritic cells, eosinophils, NK cells, mast cells, and basophils.
<b>Ligand/Receptor</b>	CCL5 binds to CCR1, CCR3 and CCR5 receptors. In addition CCL5 binds to CCR9; nevertheless, it does not induce calcium flux and therefore no chemotactic response.
<b>Bioactivity</b>	Bioactivity was measured by its property to chemoattract T cells in a dose dependent manner. The ED50 is 5-15 ng/ml.
<b>Cell Sources</b>	CCL5 is secreted by lymphocytes, macrophages, eosinophils, platelets, and fibroblasts. CCL5 is expressed by hepatocytes, sinusoidal endothelial cells, and biliary epithelium during chronic hepatitis C.
<b>Biology Area</b>	Cell Biology, Immunology, Innate Immunity, Neuroinflammation, Neuroscience
<b>Molecular Family</b>	Cytokines/Chemokines
<b>Antigen References</b>	<ol style="list-style-type: none"><li>1. Schall, <i>et al.</i> 1990. <i>Nature</i> 347:669-671.</li><li>2. Cocchi F, <i>et al.</i> 1995. <i>Science</i> 270:1811-1815.</li><li>3. Shahrara S, <i>et al.</i> 2006. <i>J. Immunology</i> 177:5077-5087.</li><li>4. Larrubia JR, <i>et al.</i> 2008. <i>World J. Gastroenterol</i> 14:7149-7159.</li><li>5. Gleissner CA, <i>et al.</i> 2008. <i>Arterioscler Thromb. Vasc. Biol.</i> 28:1920-1927.</li></ol>
<b>Gene ID</b>	<a href="#">6352</a>

## Product Data



Bioactivity was measured by its property to chemoattract BaF3 cells transfected with human CCR5.

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