

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

<b>Catalog# / Size</b>	594202 / 10 µg 594204 / 25 µg 594206 / 100 µg
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	SIS-delta, T-cell specific protein p288, Regulated on Activation Normal T-expressed and Secreted (RANTES), Wsmall inducible cytokine A5
<b>Description</b>	CCL5 is a CC chemokine that directs the migration of leukocytes in immune and inflammatory responses. Increased CCL5 expression has been associated with a wide range of inflammatory disorders and pathologies. It has been shown that CCL5 is highly expressed by breast tumor cells at primary tumor sites and is strongly associated with the progression of breast cancer. CCL5 may contribute to tumor progression by recruiting monocytes into tumor sites, and CCL5 can also stimulate the release of MMP, thereby promoting tumor cell migration. Some studies also show that CCL5 has pro-angiogenesis effects <i>in vivo</i> and <i>in vitro</i> . CCL5 oligomerization and binding to GAGs can induce angiogenic effects through its receptor CCR1 and CCR5. CCL5 is expressed in the early stages of many viral infections. It has been shown that CCL5 is protective against many viruses including influenza, RSV, HCMV, HCV, and HIV. CCL5 can inhibit HIV infection by competing with the virus for CCR5 binding. CCL5 also has been implicated in the development of asthma, atherosclerosis, and fibrosis.

## Product Details

<b>Source</b>	Mouse CCL5, amino acids Ser24 - Ser91 (Accession# Q5XZF2), was expressed in <i>E. coli</i> .
<b>Molecular Mass</b>	The 68 amino acid recombinant protein has a predicted molecular mass of approximately 7.8 kD. The DTT-reduced protein migrates at approximately 10 kD and non-reduced protein migrates at approximately 11 kD by SDS-PAGE. The predicted N-terminal amino acid is Serine.
<b>Purity</b>	>97%, as determined by Coomassie stained SDS-PAGE.
<b>Formulation</b>	0.22 µm filtered protein solution is 0.1 M Glycine, 0.15 M NaCl buffer, pH 3.0.
<b>Endotoxin Level</b>	Less than 0.01 ng per µg cytokine 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 and expiration, please enter the lot number in our <a href="#">Certificate of Analysis</a> online tool.
<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 ability to chemoattract Baf3-hCCR5 cells in a dose dependent manner.
<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> .

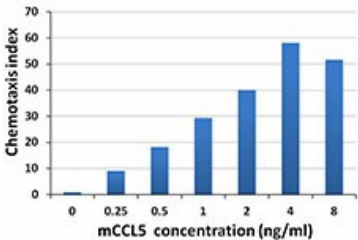
## Antigen Details

<b>Structure</b>	Chemokine
<b>Distribution</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>Function</b>	CCL5 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. CCL5 modulates LPS-induced IL-6 and TNF± in peripheral blood monocytes; this modulation occurs through the induction of IL-10 by CCL5.
<b>Interaction</b>	CCL5 is a 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. CCL5 also binds to CCR9 but does not induce calcium flux, and therefore there is no chemotactic response.

Cell Type	Dendritic cells, Tregs
Biology Area	Cell Biology, Immunology, Innate Immunity, Neuroinflammation, Neuroscience
Molecular Family	Cytokines/Chemokines
Antigen References	<ol style="list-style-type: none"> <li>1. Schall, <i>et al.</i> 1990. <i>Nature</i> 347:669.</li> <li>2. Cocchi F, <i>et al.</i> 1995. <i>Science</i> 270:1811.</li> <li>3. Shahrara S, <i>et al.</i> 2006. <i>J. Immunol.</i> 177:5077.</li> <li>4. Larrubia JR, <i>et al.</i> 2008. <i>World J. Gastroenterol.</i> 14:7149.</li> <li>5. Gleissner CA, <i>et al.</i> 2008. <i>Arterioscler. Thromb. Vasc. Biol.</i> 28:1920.</li> <li>6. Marques RE, <i>et al.</i> 2013. <i>Expert Opin. Ther. Targets</i> 17:1439.</li> </ol>

Gene ID [20304](#)

Product Data



Baf3-hCCR5 transfectants chemoattracted by mouse CCL5.

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