

Recombinant Human CCL21 (6CKine) (carrier-free)

Catalog# / Size	582202 / 10 µg 582204 / 25 µg 582206 / 100 µg 582208 / 500 µg
Regulatory Status	RUO
Other Names	6CKine, Secondary lymphoid tissue chemokine, SLC, Exudos 2, Small inducible cytokine subfamily A, member 21 (SCYA21)

Description	CCL21 is a CC chemokine highly expressed in lymph nodes. CCL21 is only 32% identical to CCL19 at the amino acid level; nevertheless, these chemokines bind to the same receptor CCR7. CCL21 has a unique extension of about 30 amino acids with two extra cysteine residues in its carboxyl terminus. CCL21 is expressed in synovial tissue in rheumatoid arthritis (RA), and it has been suggested that CCL21, but not CCL19, induces human microvascular endothelial cell (HMVEC) migration and/or tube formation. In addition, it has been reported that sustained high concentrations of either soluble or immobilized CCL19 and CCL21 inhibit T cell proliferation and IL-2 secretion.
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Product Details

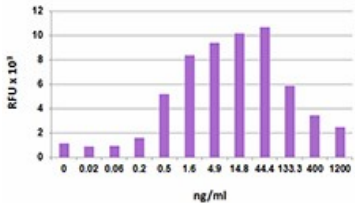
Source	Human CCL21, amino acids Ser24-Pro134 (Accession# NM_002989.2) was expressed in <i>E. coli</i> .
Molecular Mass	The 111 amino acid recombinant protein has a predicted molecular mass of approximately 12 kD. The DTT-reduced protein migrates at approximately 16 kD and non-reduced protein at approximately 17 kD by SDS-PAGE. The N-terminal amino acid is Ser.
Purity	>98%, as determined by Coomassie stained SDS-PAGE.
Formulation	0.22 µm filtered protein solution is in PBS.
Endotoxin Level	Less than 0.01 ng per µg cytokine as determined by the LAL method.
Concentration	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 Certificate of Analysis online tool.
Storage & Handling	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. Avoid repeated freeze/thaw cycles.
Activity	Bioactivity was measured by its property to chemoattract Baf3-hCCR7 transfectants in a dose dependent manner. The ED ₅₀ = 0.5 - 5.0 ng/ml.
Application	Bioassay
Application Notes	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 100% satisfaction guarantee . If you have any concerns, contact us at tech@biolegend.com .
Product Citations	1. Hull-Ryde EA, <i>et al.</i> 2018. SLAS Discov. 1.710416667. PubMed

Antigen Details

Structure	Chemokine
Distribution	CCL21 is highly expressed in HEV of lymph nodes and Peyer's patches. Also, it is expressed in the T cell zones of lymph nodes, in Peyer's patches by reticular cells, and in spleen by stromal cells. CCL21 is expressed by endothelial cells in lymphatic venules.
Function	CCL21 chemoattracts naïve T cells and maturing dendritic cells (DCs) into T zones of secondary lymphoid organs. CCL21 and CCL19 chemoattract antigen-engaged B cells to the boundary of B and T zones to interact with T-helper cells. CCL19 and CCL21 inhibit apoptosis in DCs.
Interaction	Thymocytes, activated T cells, naïve CD4 and CD8, mature DCs, fibroblast-like synoviocytes of patients with rheumatoid arthritis (RA).

Ligand/Receptor	CCR7 (CD197).
Biology Area	Angiogenesis, Cell Biology, Immunology
Molecular Family	Cytokines/Chemokines
Antigen References	1. Hedrick JA and Zlotnik A. 1997. <i>J. Immunol.</i> 159:1589. 2. Reif K, <i>et al.</i> 2002. <i>Nature</i> 416:94. 3. Ziegler E, <i>et al.</i> 2007. <i>J. Immunol.</i> 179:6485. 4. Pickens SR, <i>et al.</i> 2012. <i>Arthritis Rheum.</i> 10.1002.
Gene ID	6366

Product Data



BaF3-hCCR7 cells chemoattracted by human CCL21.

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