

Recombinant Human CXCL5 (ENA-78) (carrier-free)

Catalog# / Size	573406 / 100 µg
Regulatory Status	RUO
Other Names	Epithelial neutrophil-activating protein (ENA78), granulocyte chemotactic protein-2 (GCP-2), alveolar macrophage chemotactic factor-II (AMCF-II)
Description	CXCL5 is an ELR ⁺ CXC chemokine characterized by a Glu-Leu-Arg (ELR) motif preceding the characteristic CXC sequence. CXCL5 chemoattracts and activates neutrophils during inflammation through the binding to CXCR2. CXCL5 occurs in different NH ₂ - and COOH-truncated forms, and both NH ₂ -terminal and COOH-terminal truncation result in an increase in neutrophil chemotactic potency. CXCL5(8–78) and CXCL5(9–78) induce a higher neutrophil influx <i>in vivo</i> compared with CXCL5(1–78). CXCL5 regulates the availability of binding sites for other ELR ⁺ CXC chemokines released during inflammation, through its interaction with erythrocyte duffy antigen receptor (DARC). As a result, CXCL5 induces the increase of CXCL1 and CXCL2 in a model of pulmonary inflammation. Therefore, CXCL5 acts as a regulator of chemokine scavenging and pulmonary host defense to bacterial infection. Lung epithelial cells express CXCR2; consequently, CXCL5 may modulate neutrophil transepithelial and transendothelial migration. High levels of CXCL5 have been associated to prostate tumor, gastric cancer, and pancreatic cancer progression.

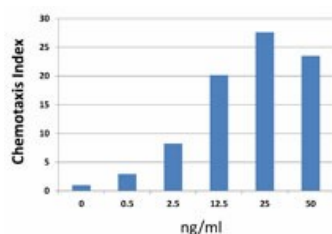
Product Details

Source	Human CXCL5, amino acids Ala37-Asn114 (Accession# NM_002994.3) was expressed in <i>E. coli</i> .
Molecular Mass	The 78 amino acid recombinant protein has a predicted molecular mass of approximately 8.35 kD. The DTT-reduced and non-reduced protein migrate at approximately 10 kD by SDS-PAGE. The N-terminal amino acid is Ala.
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, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.
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 human neutrophils in a dose dependent manner.
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 .

Antigen Details

Structure	Chemokine
Distribution	Endothelial cells, fibroblasts, neutrophils, monocytes, macrophages, platelets, alveolar type II cells
Function	CXCL5 chemoattracts and activates neutrophils during inflammation, and it is induced by LPS and inflammatory cytokines. NH2-terminal truncation enhances, whereas citrullination decreases the chemotactic properties of CXCL5.
Interaction	Neutrophils
Ligand/Receptor	CXCR2
Cell Type	Hematopoietic stem and progenitors
Biology Area	Cell Biology, Signal Transduction, Stem Cells
Molecular Family	Cytokines/Chemokines
Antigen References	<ol style="list-style-type: none"> 1. Walz A, <i>et al.</i> 1991. <i>J. Exp. Med.</i> 174:1355. 2. Wuyts A, <i>et al.</i> 1999. <i>J. Immunol.</i> 163:6155. 3. Jeyaseelan S, <i>et al.</i> 2005. <i>Am. J. Respir. Cell. Mol. Biol.</i> 32:531. 4. Mei J, <i>et al.</i> 2010. <i>Immunity</i> 33:106. 5. Mortier A, <i>et al.</i> 2010. <i>J. Biol. Chem.</i> 285:29750. 6. Grommes J and Soehnlein O. 2011. <i>Mol. Med.</i> 17:293. 7. Liu Y, <i>et al.</i> 2011. <i>J. Immunol.</i> 186:3197. 8. Kuo PL, <i>et al.</i> 2011. <i>J. Cell. Physiol.</i> 226:1224.
Gene ID	6374

Product Data



Human neutrophils chemoattracted by human CXCL5.

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