

Recombinant Mouse CXCL3 (carrier-free)

Catalog# / Size	590802 / 10 µg
Regulatory Status	RUO
Other Names	Gro3, Groy, Small inducible cytokine subfamily B, member 3 (Scyb3), macrophage inflammatory protein-2 beta (MIP2B), CINC-2b
Description	CXCL3 is an ELR CXC chemokine, and it is structurally and functionally related to GRO1 (CXCL1), GRO2 (CXCL2), and interleukin-8 (CXCL8). CXCL3 binds to the CXCR2 receptor, and this receptor is shared with other ELR CXC chemokines (CXCL1, CXCL2, CXCL5, CXCL6, CXCL7, and CXCL8). CXC chemokines play a crucial role in the first phase of inflammation; in this stage, PMN cells are rapidly chemoattracted. In the next step of inflammation, the CC chemokines (MCPs) attract different cell subpopulations such as T cells, monocytes, basophils, and eosinophils. MMP12, mainly produced by macrophages, modulates the activity of ELR-CXC chemokines, and it cleaves human CXCL1, CXCL2 and CXCL3 within the ELR sequence at Glu6-Leu7. The ELR sequence is critical in receptor binding; therefore, the cleavage inactivates these chemokines and abrogates the PMN influx. CXCL3 is expressed in colon carcinoma, and it is associated with metastasis. Also, CXCL1, CXCL2 and CXCL3 have been shown to be highly expressed in patients with malignant melanoma. CXCL3, in addition to other chemokines, is induced by IL-17A in psoriasis. Also, CXCL3 and other pro-angiogenic ELR ⁺ chemokines are induced by microparticules in synovial fibroblasts from patients with rheumatoid arthritis.

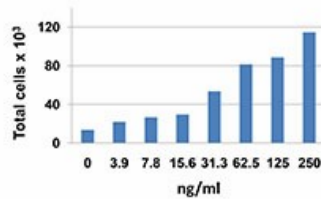
Product Details

Source	Mouse CXCL3, amino acids Ala28-Ser100 (Accession# NM_203320.3) was expressed in <i>E. coli</i> .
Molecular Mass	The 73 amino acid recombinant protein has a predicted molecular mass of approximately 7.9 kD. The DTT-reduced and non-reduced protein migrate at approximately 10 and 12 kD by SDS-PAGE respectively. 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 100 µg/mL. 100 µg 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 .
Product Citations	1. Abe H, <i>et al.</i> 2019. Nat Commun. 10:2824. PubMed

Antigen Details

Structure	Chemokine.
Distribution	Macrophages, monocytes, fibroblasts, epithelial cells, keratinocytes, and placental trophoblasts.
Function	CXCL3 chemoattracts and activates neutrophils. CXCL3 is induced by IL-1a, IL-17A, and GnRH. CXCL3 is inactivated by MMP12.
Interaction	Neutrophils, basophils, lymphocytes, monocytes, keratinocytes, endothelial cells, epithelial cells, fibroblasts, melanoma cells, and melanocytes.
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. Haskill S, <i>et al.</i> 1990. <i>Proc. Natl. Acad. Sci. USA</i> 87:7732.2. Dean RA, <i>et al.</i> 2008. <i>Blood</i> 112:3455.3. Cavanagh PC, <i>et al.</i> 2009. <i>Am. J. Physiol. Cell Physiol.</i> 297:C17.4. Doll D, <i>et al.</i> 2010. <i>Int. J. Colorectal. Dis.</i> 25:573.5. Keeley EC, <i>et al.</i> 2011. <i>Exp. Cell Res.</i> 317:685.6. Reich N, <i>et al.</i> 2011. <i>J. Cell Mol. Med.</i> 15:756.7. Girolomoni G, <i>et al.</i> 2012. <i>Br. J. Dermatol.</i> 167:717.
Gene ID	330122

Product Data



Human neutrophils chemoattracted by mouse CXCL3.

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