

## Recombinant Human CXCL10 (IP-10) (carrier-free)

<b>Catalog# / Size</b>	573502 / 10 µg 573504 / 25 µg 573506 / 100 µg 573508 / 500 µg
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Interferon gamma-inducible protein 10 (IP-10), Interferon gamma induced factor, gIP-10, IFI10, INP10

<b>Description</b>	CXCL10 is an ELR-negative chemokine structurally and functionally related to CXCL9 and CXCL11. CXCL10, CXCL9, and CXCL11 are produced and secreted by monocytes, macrophages, fibroblasts, and epithelial cells upon stimulation with proinflammatory cytokines, especially IFN $\gamma$ . CXCL10 chemoattracts CD4, CD8, NK, and NKT cells through the binding to its receptor CXCR3, which is shared with CXCL9 and CXCL11. In addition, CXCL10 inhibits neovascularization in tumors and in wound healing <i>in vivo</i> . Also, CXCL10 has anti-proliferative effects on endothelial cells <i>in vitro</i> , and angiostatic and antitumor effects <i>in vivo</i> . It has been suggested that the anti-proliferative effect of CXCL10 in endothelial cells is CXCR3-independent and that it is mediated through GAG interaction. CXCL10 also possesses antimicrobial activity against <i>E. coli</i> and <i>L. monocytogenes</i> , and both the spore and bacillus forms of <i>B. anthracis</i> . CXCL10 expression is strongly upregulated in many human inflammatory diseases, including rheumatoid arthritis, type I diabetes, multiple sclerosis, atherosclerosis, allograft rejection, and others.
--------------------	--

### Product Details

<b>Source</b>	Human CXCL10, amino acids Val22-Pro98 (Accession# NM_001565) was expressed in <i>E. coli</i> .
<b>Molecular Mass</b>	The 78 amino acid recombinant protein has a predicted molecular mass of approximately 8.7 kD. The DTT-reduced and non-reduced protein migrate at approximately 10 kD by SDS-PAGE. The N-terminal amino acid is Met.
<b>Purity</b>	>98%, as determined by Coomassie stained SDS-PAGE.
<b>Formulation</b>	0.22 µm filtered protein solution is in PBS.
<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, 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 PHA, IL-2 activated T cells in a dose dependent manner. The ED <sub>50</sub> = 30 to 180 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> .
<b>Product Citations</b>	<ol style="list-style-type: none"> <li>1. Becker J, <i>et al.</i> 2018. Virulence. 9:1669. <a href="#">PubMed</a></li> <li>2. Sek A, <i>et al.</i> 2015. PLoS One. 10: 0133266. <a href="#">PubMed</a></li> </ol>

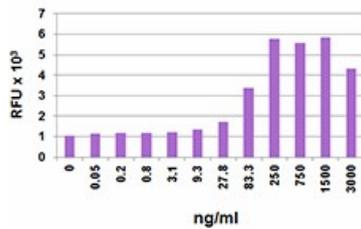
## Antigen Details

---

<b>Structure</b>	Chemokine
<b>Distribution</b>	Interferon gamma-stimulated keratinocytes, monocytes, macrophages, fibroblasts, endothelial, T cells
<b>Function</b>	CXCL10 chemoattracts CD4, Th1, CD8, NK, and NKT cells. CXCL10 is induced by inflammatory cytokines, and NH <sub>2</sub> -terminal cleavage of CXCL10 by DPP-IV/CD26 impairs its chemoattracting capacity and CXCR3 signaling.
<b>Interaction</b>	Activated T cells, Th1 cells, regulatory T cells, NK cells, NKT cells, endothelial cells, fibroblasts, endothelial cells
<b>Ligand/Receptor</b>	CXCR3
<b>Biology Area</b>	Cell Biology, Signal Transduction
<b>Molecular Family</b>	Cytokines/Chemokines
<b>Antigen References</b>	<ol style="list-style-type: none"><li>1. Luster AD, <i>et al.</i> 1985. <i>Nature</i> 315:672.</li><li>2. Loos T, <i>et al.</i> 2008. <i>Blood</i> 112:2648.</li><li>3. Crawford MA, <i>et al.</i> 2009. <i>Infect. Immun.</i> 77:1664.</li><li>4. Campanella GS, <i>et al.</i> 2010. <i>PLoS One</i> 5:e12700.</li><li>5. Hoerning A. 2011. <i>Eur. J. Immunol.</i> 41:2291.</li></ol>
<b>Gene ID</b>	<a href="#">3627</a>

## Product Data

---



PHA activated human T cells chemoattracted by human CXCL10.

For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

\*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, [www.biolegend.com/ordering#license](http://www.biolegend.com/ordering#license)). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

8999 BioLegend Way, San Diego, CA 92121 [www.biolegend.com](http://www.biolegend.com)  
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587