

Recombinant Mouse CXCL10 (IP-10) (carrier-free)

Catalog# / Size	573602 / 10 µg 573604 / 25 µg
Regulatory Status	RUO
Other Names	Interferon gamma-inducible protein 10 (IP-10), Interferon gamma induced factor, gIP-10, IFI10, INP10, cytokine responsive gene-2 (CRG2)
Description	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 γ . CXCL10 chemoattracts CD4, CD8, and 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 inflammatory diseases, including arthritis, type I diabetes, experimental autoimmune encephalomyelitis, atherosclerosis, allograft rejection, and others.

Product Details

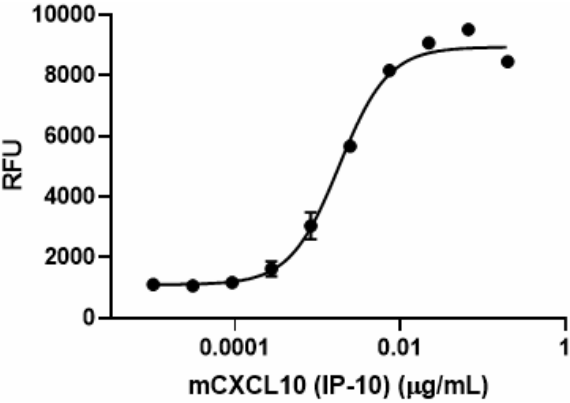
Source	Mouse CXCL10, amino acids Ile22-Pro98 (Accession# NM_021274) was expressed in <i>E. coli</i> .
Molecular Mass	The 78 amino acid recombinant protein has a predicted molecular mass of approximately 8.8 kD. The DTT-reduced and non-reduced protein migrate at approximately 10 kD by SDS-PAGE. The N-terminal amino acid is Met.
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
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	Recombinant Mouse CXCL10 (IP-10) induces chemotaxis of mouse Baf3-mCXCR3 transfectant cells in a dose-dependent manner. The ED ₅₀ for this effect is < 6 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 .
Application References (PubMed link indicates BioLegend citation)	1. Erickson AK, <i>et al.</i> 2015. <i>J gen Virol.</i> 96:1328. PubMed
Product Citations	1. Pfeiffer A 2015. <i>J Gen Virol.</i> 96:1328. PubMed

Antigen Details

Structure	Chemokine
Distribution	Interferon gamma-stimulated keratinocytes, monocytes, macrophages, fibroblasts, endothelial, and T cells.
Function	CXCL10 chemoattracts CD4, Th1, CD8, and NK and NKT cells. CXCL10 is induced by inflammatory cytokines. NH ₂ -terminal cleavage of CXCL10 by DPP-IV/CD26 impairs its chemoattracting capacity and CXCR3 signaling ability.

Interaction	Activated T cells, Th1 cells, regulatory T cells, NK cells, NKT cells, endothelial cells, and fibroblasts.
Ligand/Receptor	CXCR3
Biology Area	Cell Biology, Signal Transduction
Molecular Family	Cytokines/Chemokines
Antigen References	<ol style="list-style-type: none"> 1. Luster AD, <i>et al.</i> 1985. <i>Nature</i> 315:672. 2. Vanguri P, <i>et al.</i> 1990. <i>J. Biol. Chem.</i> 265:15049. 3. Loos T, <i>et al.</i> 2008. <i>Blood</i> 112:2648. 4. Crawford MA, <i>et al.</i> 2009. <i>Infect. Immun.</i> 77:1664. 5. Campanella GS, <i>et al.</i> 2010. <i>PLOS One</i> 5:e12700. 6. Hoerning A. 2011. <i>Eur. J. Immunol.</i> 41:2291.
Gene ID	15945

Product Data



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