

Active Recombinant Human CXCL8 Protein

Cat. No. CXCL8-052H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human interleukin-8 is expressed in yeast and consists of 72 amino acids with no glycosylation sites.
Species	Human
Source	Yeast
Description	The protein encoded by this gene is a member of the CXC chemokine family and is a major mediator of the inflammatory response. The encoded protein is commonly referred to as interleukin-8 (IL-8). IL-8 is secreted by mononuclear macrophages, neutrophils, eosinophils, T lymphocytes, epithelial cells, and fibroblasts. It functions as a chemotactic factor by guiding the neutrophils to the site of infection. Bacterial and viral products rapidly induce IL-8 expression. IL-8 also participates with other cytokines in the proinflammatory signaling cascade and plays a role in systemic inflammatory response syndrome (SIRS). This gene is believed to play a role in the pathogenesis of the lower respiratory tract infection bronchiolitis, a common respiratory tract disease caused by the respiratory syncytial virus (RSV). The overproduction of this proinflammatory protein is thought to cause the lung inflammation associated with cystic fibrosis. This proinflammatory protein is also suspected of playing a role in coronary artery disease and endothelial dysfunction. This protein is also secreted by tumor cells and promotes tumor migration, invasion, angiogenesis and metastasis. This chemokine is also a potent angiogenic factor. The binding of IL-8 to one of its receptors (IL-8RB/CXCR2) increases the permeability of blood vessels and increasing levels of IL-8 are positively correlated with increased

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

	severity of multiple disease outcomes (eg, sepsis). This gene and other members of the CXC chemokine gene family form a gene cluster in a region of chromosome 4q.
Form	Sterile lyophilized powder
Molecular Mass	~8.4 kDa
Bio-activity	Activity is determined by the inhibition of cAMP production in HEK293/CXCR1 cells, with an ED50 of 0.5–10 ng/mL.
Endotoxin	<1 EU/μg determined by LAL.
Purity	≥97%
Storage	Lyophilized samples remain stable for 36 months when stored at –20 to –70 centigrade from the date of manufacture. After reconstitution, the cytokine can be kept for one month at 2–8 centigrade under sterile conditions, or for three months at –20 to –70 centigrade in a manual-defrost freezer, without significant loss of activity. Avoid repeated freeze-thaw cycles.
Storage Buffer	This product is supplied as a sterile lyophilized powder in a buffer of PBS, pH7.4, 0.1% HSA.
Reconstitution	Before opening the vial, centrifuge at 10, 000 rpm for 30–60 seconds, or at 3, 000 rpm for 5 minutes, then reconstitute with 0.2 mL of sterile water.

GENE INFORMATION

Gene Name	CXCL8 C-X-C motif chemokine ligand 8 [Homo sapiens (human)]
Official Symbol	CXCL8

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Synonyms

CXCL8; C-X-C motif chemokine ligand 8; IL8; NAF; GCP1; LECT; LUCT; NAP1; GCP-1; LYNAP; MDNCF; MONAP; NAP-1; SCYB8; interleukin-8; T-cell chemotactic factor; alveolar macrophage chemotactic factor I; beta endothelial cell-derived neutrophil activating peptide; beta-thromboglobulin-like protein; chemokine (C-X-C motif) ligand 8; emoctakin; granulocyte chemotactic protein 1; interleukin 8; lung giant cell carcinoma-derived chemotactic protein; lymphocyte derived neutrophil activating peptide; monocyte-derived neutrophil chemotactic factor; monocyte-derived neutrophil-activating peptide; neutrophil-activating peptide 1; small inducible cytokine subfamily B, member 8; tumor necrosis factor-induced gene 1

Gene ID

[3576](#)

mRNA Refseq

[NM_000584](#)

Protein Refseq

[NP_000575](#)

MIM

[146930](#)

UniProt ID

[P10145](#)

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