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IL-8/CXCL8

Catalog # PVGS1395

Product Information

Primary Accession	P10145
Species	Human
Sequence	Ala23-Ser99
Purity	> 95% as analyzed by SDS-PAGE
Endotoxin Level	
Biological Activity	The EC_{50} value of human IL-8(77aa) on Ca^{2+} mobilization assay in CHO-K1/G15/hCXCR1 cells (human Ga15 and human CXCR1 stably expressed in CHO-K1 cells) is less than 150.0 ng/ml.
Expression System	E. coli
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH_2O or PBS up to 100 □g/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

Additional Information

Gene ID	3576
Other Names	Interleukin-8, IL-8, C-X-C motif chemokine 8, Chemokine (C-X-C motif) ligand 8, Emoctakin, Granulocyte chemotactic protein 1, GCP-1, Monocyte-derived neutrophil chemotactic factor, MDNCF, Monocyte-derived neutrophil-activating peptide, MONAP, Neutrophil-activating protein 1, NAP-1, Protein 3-10C, T-cell chemotactic factor, MDNCF-a, GCP/IL-8 protein IV, IL8/NAP1 form I, Interleukin-8, (Ala-IL-8)77, GCP/IL-8 protein II, IL-8(1-77), IL8/NAP1 form II, MDNCF-b, IL-8(5-77), IL-8(6-77), (Ser-IL-8)72, GCP/IL-8 protein I, IL8/NAP1 form III, Lymphocyte-derived neutrophil-activating factor, LYNAP, MDNCF-c, Neutrophil-activating factor, NAF, IL-8(7-77), GCP/IL-8 protein V, IL8/NAP1 form IV, IL-8(8-77), GCP/IL-8 protein VI, IL8/NAP1 form V, IL-8(9-77), GCP/IL-8 protein III, IL8/NAP1 form VI, CXCL8, IL8
Target Background	Interleukin-8 (IL-8), also known as CXCL8, GCP-1 and NAP-1, is one of the first discovered chemokines and belongs to the CXCL family, in which the first two conserved cysteines are separated by one residue. In vivo, IL-8 exists in two

forms: a 77 a.a. protein produced by endothelial cells, and the more active 72 a.a. protein produced by monocytes. The receptors for IL-8 are the seven-helical G-protein coupled receptors CXCR1 and CXCR2, exclusively expressed on neutrophils. The functions of IL-8 are to induce rapid changes in cell morphology, activate integrins, and release the granule contents of neutrophils. Thus, IL-8 can enhance the antimicrobial actions of defense cells. It is secreted by monocytes, macrophages and endothelial cells. IL-8 signals through CXCR1 and CXCR2 to chemoattract neutrophils, basophils, and T cells. IL-8 is also a potent promoter of angiogenesis. Other functions of this protein, such as involvement in bronchiolitis pathogenesis, have also been reported.

Protein Information

Name	CXCL8
Synonyms	IL8
Function	Chemotactic factor that mediates inflammatory response by attracting neutrophils, basophils, and T-cells to clear pathogens and protect the host from infection (PubMed:18692776, PubMed:7636208). Also plays an important role in neutrophil activation (PubMed:2145175, PubMed:9623510). Released in response to an inflammatory stimulus, exerts its effect by binding to the G protein-coupled receptors CXCR1 and CXCR2, primarily found in neutrophils, monocytes and endothelial cells (PubMed:1840701, PubMed:1891716). G protein heterotrimer (alpha, beta, gamma subunits) constitutively binds to CXCR1/CXCR2 receptor and activation by IL8 leads to beta and gamma subunits release from Galpha (GNAI2 in neutrophils) and activation of several downstream signaling pathways including PI3K and MAPK pathways (PubMed:11971003, PubMed:8662698).
Cellular Location	Secreted.

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