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IL-8/CXCL8

Catalog # PVGS1316

Specification

IL-8/CXCL8 - Product Information

Primary Accession P10145

Species
Human

Sequence
Ala23-Ser99

Purity
> 95% as analyzed by SDS-PAGE
> 95% as analyzed by HPLC

Endotoxin Level
< 0.2 EU/ µg of protein by gel clotting method

Biological Activity
ED₅₀ < 6.0 ng/ml, measured in a calcium flux assay using CHO/Gα15 cells transiently expressing CXCR1.

Expression System
CHO

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 µg/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.

IL-8/CXCL8 - 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.

IL-8/CXCL8 - 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.

IL-8/CXCL8 - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence

- Immunoprecipitation
- Flow Cytomety
- Cell Culture

IL-8/CXCL8 - Images