

DESCRIPTION

Source *E. coli*-derived
Ser28-Ser99
Accession # P10145.1

N-terminal Sequence Analysis Ser28

Predicted Molecular Mass 8 kDa

SPECIFICATIONS

Activity Measured by its ability to induce myeloperoxidase release from cytochalasin B-treated human neutrophils. Schröder, J.M. *et al.* (1987) *J. Immunol.* **139**:3474.
The ED₅₀ for this effect is typically 0.15-0.3 µg/mL.

Measured by its ability to chemoattract BaF3 mouse pro-B cells transfected with human CXCR2.
The ED₅₀ for this effect is typically 0.5-2.5 ng/mL.

Endotoxin Level <1.0 EU per 1 µg of the protein by the LAL method.

Purity >97%, by SDS-PAGE under reducing conditions and visualized by silver stain.

Formulation Lyophilized from a 0.2 µm filtered solution in deionized water with BSA as a carrier protein. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution Reconstitute at 100 µg/mL in sterile PBS containing at least 0.1% human or bovine serum albumin.

Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage **Use a manual defrost freezer and avoid repeated freeze-thaw cycles.**

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

CXCL8 was originally discovered and purified independently by a number of laboratories as a neutrophil chemotactic and activating factor. It was also referred to as neutrophil chemotactic factor (NCF), neutrophil activating protein (NAP), monocyte-derived neutrophil chemotactic factor (MDNCF), T-lymphocyte chemotactic factor (TCF), granulocyte chemotactic protein (GCP) and leukocyte adhesion inhibitor (LAI). Many cell types, including monocyte/macrophages, T cells, neutrophils, fibroblasts, endothelial cells, keratinocytes, hepatocytes, chondrocytes, and various tumor cell lines, can produce CXCL8 in response to a wide variety of pro-inflammatory stimuli such as exposure to IL-1, TNF, LPS, and viruses. CXCL8 is a member of the alpha (CX) subfamily of chemokines, which also includes platelet factor 4, GRO, IP-10, etc.

CXCL8 is a potent chemoattractant for neutrophils. In addition, CXCL8 also has a wide range of other pro-inflammatory effects. CXCL8 causes degranulation of neutrophil specific granules and azurophilic granules. CXCL8 induces expression of the cell adhesion molecules CD11/CD18 and enhances the adherence of neutrophils to endothelial cells and sub-endothelial matrix proteins. Besides neutrophils, CXCL8 is also chemotactic for basophils, T cells and eosinophils. CXCL8 has been reported to be a co-mitogen for keratinocytes and was also shown to be an autocrine growth factor for melanoma cells. CXCL8 was also reported to be angiogenic both *in vivo* and *in vitro*.