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### 1. Description

**Products** Human IL-8 (72 aa), research grade.  
Recombinant human interleukin 8 (72 aa).

Content in µg	Order no.
5	130-093-942
25	130-093-943
100	130-108-979

**Biological activity** Determined by its ability to chemoattract human peripheral blood neutrophils using a concentration range of 10.0–100.0 ng/mL.

**Primary structure** Single, non-glycosylated polypeptide chain (72 amino acid residues).

**Molecular mass** 8.5 kDa.

**Source** Produced in *E. coli*.

**Product format** Lyophilized from a filtered (0.2 µm) buffer solution.

**Stabilizer** None.

**Purity** >97% as determined by SDS-PAGE analysis.

**Endotoxin level** Low endotoxin (<1 EU/µg cytokine) as determined by Limulus Amebocyte Lysate (LAL) assay.

**Storage** Lyophilized Human IL-8 (72 aa), research grade should be stored at –20 °C. The expiration date is indicated on the vial label. Upon reconstitution aliquots should be stored at –20 °C or below. Avoid repeated freeze-thaw cycles.

**Reconstitution** It is recommended to reconstitute lyophilized Human IL-8 (72 aa), research grade with deionized sterile-filtered water to a final concentration of 0.1–1.0 mg/mL in a minimal volume of 50 µL. Further dilutions should be prepared with 0.1% bovine serum albumin (BSA) or human serum albumin (HSA) in phosphate-buffered saline.

### 1.1 Background information

Interleukin 8 (IL-8), also known as CXCL8, is a proinflammatory molecule belonging to the CXC chemokine family. The precursor form of IL-8 is cleaved into several mature isoforms (including 72 aa and 77 aa) and is secreted by several type of cells, especially monocytes and endothelial cells, upon pro-inflammatory stimulation. IL-8 signals through the CXCR1 and CXCR2 receptors, chemoattracts and activates granulocytes, especially neutrophils and lymphocytes, and plays also an angiogenic role. Overexpression of IL-8 can lead to epithelial damage and injury of the airway tissues.

### 1.2 Applications

Human IL-8 (72 aa) can be used for a variety of applications, including:

- Study of leukocyte chemotaxis.
- Investigation of CXCR1 and CXCR2 signaling pathway.

Optimal concentration for a specific application should be determined by a dose-response experiment.

Refer to [www.miltenyibiotec.com](http://www.miltenyibiotec.com) for all data sheets and protocols.

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