

Store at
-20°C

Human Interleukin-8 (hIL-8)

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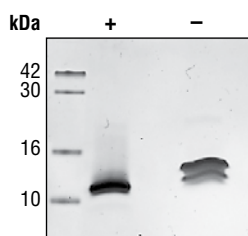
For Research Use Only. Not For Use In Diagnostic Procedures.**Molecular Wt.**
9 kDa**Source**
Human Recombinant Protein
expressed in *E. coli***Purity**
> 95%

Background: The prototypical CXC chemokine, IL-8, is best known for effects on neutrophils, specifically its ability to act as a chemoattractant and activate degranulation and respiratory burst (1,2,3). IL-8 is produced by a number of cell types, including monocytes, T cells, neutrophils, fibroblasts, endothelial cells, and others (1). In addition to its effects on neutrophils, IL-8 promotes angiogenesis, inhibits endothelial cell apoptosis, and promotes the proliferation of melanoma cells in an autocrine fashion (1). As a result, IL-8 may be a contributing factor to the development of certain cancers (1,2). There are two distinct receptors for IL-8, CXCR1 and CXCR2; both are G protein-coupled receptors (1). Ligand binding induces Ca²⁺ mobilization and activates the PI3K, PKC, Rho, and Rac pathways (1,3).

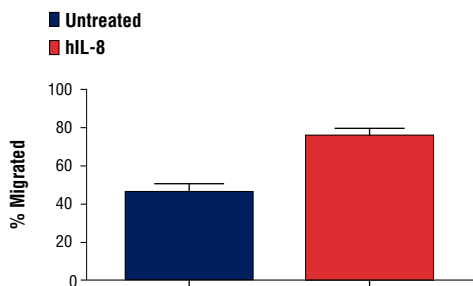
Background References:

- (1) Payne, A.S. and Cornelius, L.A. (2002) *J Invest Dermatol* 118, 915-22.
- (2) Brat, D.J. et al. (2005) *Neuro Oncol* 7, 122-33.
- (3) Mukaida, N. (2003) *Am J Physiol Lung Cell Mol Physiol* 284, L566-77.

Source/Purification: Recombinant human IL-8 was expressed in *E. coli* and is supplied in a lyophilized form. A greater than 95% purity was determined by SDS-PAGE. Endotoxin levels are less than or equal to 1 EU / 1 µg hIL-8.



The purity of recombinant hIL-8 was determined by SDS-PAGE of 1.5 µg reduced (+) and non-reduced (-) recombinant hIL-8 and staining overnight with Coomassie Blue.



A cell migration assay was used to measure the effect of hIL-8 on human neutrophil cells. The neutrophils were isolated and loaded into an upper chamber over a permeable membrane at a concentration of 2×10^6 cells/mL. The hIL-8 was loaded into the bottom chamber at a concentration of 10 ng/mL to induce cell migration. PBS was used as a vehicle control. The chambers were incubated for an hour at 37°C and 5% CO₂ prior to being collected and counted on a hemocytometer to measure the percentage of cell migration.

Storage: Recombinant human IL-8 is supplied as lyophilized material that is very stable at -20°C. It is recommended to reconstitute with sterile water at a concentration of 0.1 mg/mL, which can be further diluted in aqueous solutions as needed. Addition of a carrier protein (0.1% HSA or BSA) is recommended for long term storage.

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide **Species Cross-Reactivity:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.