

General Information

Synonyms	3-10C; AMCF-I; C-X-C motif chemokine 8; CXCL8; CXCL8SCYB8; Emoctakin; GCP1; IL8;
Accession #	P10145.1
Source	Human embryonic kidney cell, HEK293-derived human IL-8/CXCL8 protein
	Ser28-Ser99
Predicted Molecular weight	8.5 kDa

Components and Storage

Formulation	Solution protein. Dissolved in sterile PBS buffer.
	This solution can be diluted into other aqueous buffers. Centrifuge the vial prior to opening.

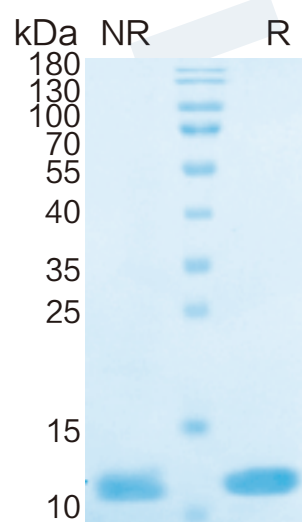
Storage and Stability	Avoid repeated freeze-thaw cycles. It is recommended that the protein be aliquoted for optimal storage. 12 months from date of receipt, -20 to -70 °C as supplied.
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Shipping	Shipping with dry ice.
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Quality

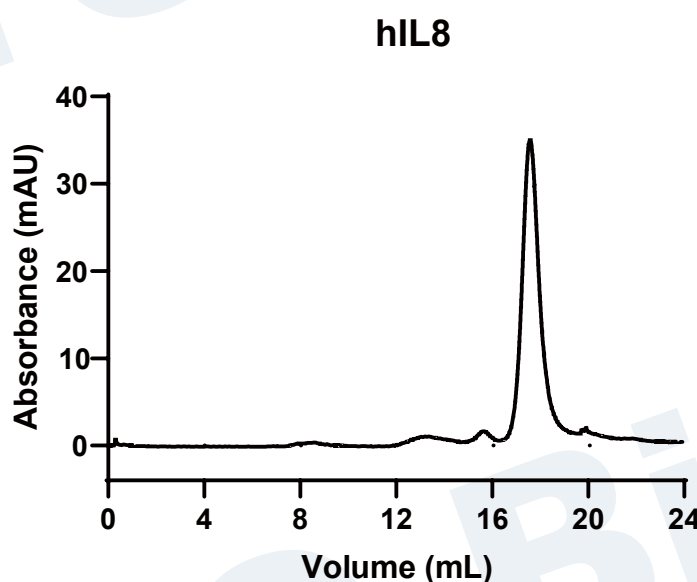
Purity	> 95%, determined by SDS-PAGE.
Endotoxin Level	<0.010 EU per 1 ug of the protein by the LAL method.
Activity	Measured by its ability to chemoattract BaF3 mouse pro-B cells transfected with human CXCR2. The ED50 for this effect is 0.2-1.0 ng/mL.

SDS-PAGE



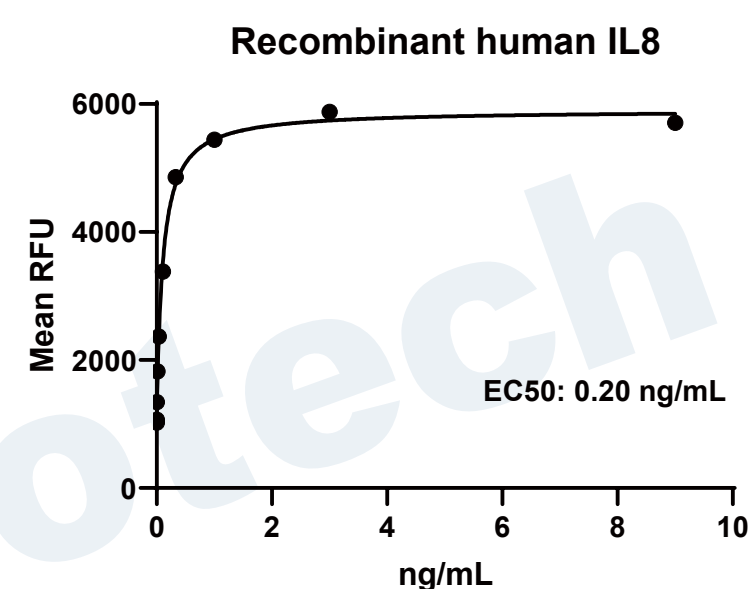
4 ug/lane protein was resolved with SDS-PAGE under non-reducing (NR) and reducing (R) conditions and visualized by Coomassie Blue staining.

Gel filtration



Size-exclusion chromatography of recombinant human IL8 protein (280 nm absorbance)

Bioactivity



Recombinant human IL8 (Catalog # HF-1008) chemoattract BaF3 mouse pro-B cells transfected with human CXCR2.

Background

Interleukin-8 (IL-8), also known as CXCL8, GCP-1, and NAP-1, is a widely expressed proinflammatory member of the CXC family of chemokines. Near its N-terminus, this 8-9 kDa chemokine contains an ELR motif which is important for its angiogenic properties (1). IL-8/CXCL8 can associate into a homodimer or a heterodimer with CXCL4/PF4 (2), and it can also interact with matrix and cell surface glycosaminoglycans (3). Mature human IL-8/CXCL8 shares 65%-69% amino acid (aa) sequence identity with canine, feline, and porcine IL-8/CXCL8 (4). There is no IL-8/CXCL8 gene counterpart in rodent. N-terminal truncation by multiple proteases generates a range of shorter forms, and an alternative splice form of human IL-8/CXCL8 carries an eleven aa substitution at the C-terminus (5). The bioactivity of IL-8/CXCL8 is regulated by these truncations, by IL-8/CXCL8 citrullination at Arg5 (N-terminal to the ELR motif) (6), and by the decoy receptor DARC (7). IL-8/CXCL8 effects are mediated through CXCR1/IL-8 RA, which is also used by CXCL6, and through CXCR2/IL-8 RB, which is used by multiple CXC chemokines (1). CXCR1 and CXCR2 associate into functional homodimers and heterodimers with each other (8). Through both CXCR1 and CXCR2, CXCL8 promotes neutrophil adhesion to the vascular endothelium and migration to sites of inflammation (9). It triggers the antimicrobial activation of neutrophils through CXCR1 (10).

Reference

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