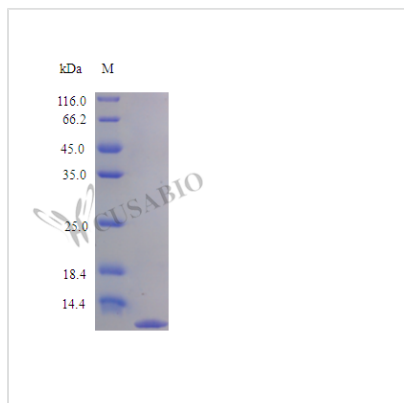




Recombinant Human Interleukin-8 (CXCL8), partial (Active)

Product Code	CSB-AP001771HU
Uniprot No.	P10145
Form	Lyophilized powder
Storage Buffer	Lyophilized from a 0.2 µm filtered PBS, pH 7.4
Product Type	Chemokine
Immunogen Species	Homo sapiens (Human)
Biological Activity	Fully biologically active when compared to standard. The ED50 as determined by a chemotaxis bioassay using human CXCR2 transfected mouse BaF3 cells is less than 2 ng/ml, corresponding to a specific activity of $>5.0 \times 10^5$ IU/mg.
Purity	$>96\%$ as determined by SDS-PAGE.
Sequence	AVLPRSAKEL RCQCICKTYSK PFHPKFIKEL RVIESGPHCA NTEIIVKLSD GRELCLDPKE NWVQRVVEKF LKRAENS
Research Area	Immunology
Source	E.coli
Target Names	CXCL8
Expression Region	23-99aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	Tag-Free
Mol. Weight	8.9 kDa
Protein Length	Partial
PubMed ID	2953813; 3260265; 2663993; 2664463; 2200751; 14702039; 15489334; 2523801; 2145175; 2648135; 2659722; 1755384; 2655583; 8344717; 3279957; 3480540; 3322281; 2212672; 2007144; 11023497; 11978786; 1639201; 14711052; 18710930; 19608678; 20829347; 2681204; 2184

Image



Description

Explore the potential of our Recombinant Human CCL8 protein, an essential research tool for immunology-focused investigations. This C-C motif chemokine 8, also known as CCL8, is produced in *E. coli* and encompasses the 24-99aa expression region of the full-length mature protein. The tag-free protein is supplied in lyophilized powder form, allowing for straightforward reconstitution with sterile water or buffer for a wide range of experimental applications.

Committed to quality and performance, our Recombinant Human CCL8 protein exhibits a purity of >96% as determined by SDS-PAGE and HPLC analysis. Furthermore, endotoxin levels are maintained below 1.0 EU/μg, as determined by the LAL method. The protein demonstrates full biological activity, as determined by a chemotaxis bioassay using human peripheral blood monocytes, with an effective concentration range of 10-100 ng/mL.

Extensive research has been conducted to understand the function and relevance of CCL8 (C-C motif chemokine 8) in various biological processes and diseases. CCL8, a member of the CC chemokine family, was first identified by Van Damme *et al.* (1992)^[1], who elucidated its role as a chemoattractant for monocytes, lymphocytes, and neutrophils. The biological roles of CCL8 in monocyte chemotaxis and immune response were further examined by Gouwy *et al.* (2011)^[2], revealing that CCL8 has unique anti-HIV-1 properties and enhances monocyte migration. CCL8's association with cancer was demonstrated by Hromas *et al.* (1999)^[3], who identified the overexpression of CCL8 in various cancer cell lines and its potential as a prognostic and therapeutic target. The involvement of CCL8 in autoimmune diseases, such as rheumatoid arthritis, was elucidated by Patel *et al.* (2014)^[4], suggesting that CCL8 could serve as a biomarker for this disease. Furthermore, a study by Yin *et al.* (2016)^[5] demonstrated that CCL8 plays a significant role in promoting tumor progression and metastasis in colorectal cancer, providing evidence for its potential as a therapeutic target.

References:

1. Van Damme J, *et al.* Identification of the human monocyte-derived chemotactic peptide that is identical to monocyte chemotactic protein 2. *J Leukoc Biol.* 1992;52(6): 595-8.
2. Gouwy M, *et al.* Unique features of human CCL8: high potency and selectivity for monocytes, and synergistic interactions with monocyte chemoattractant



proteins. *J Leukoc Biol.* 2011;90(6): 1165-74.

3. Hromas R, *et al.* Cloning of BRAK, a novel divergent CXC chemokine preferentially expressed in normal versus malignant cells. *Biochem Biophys Res Commun.* 1999;255(3): 703-6.

4. Patel DD, *et al.* Chemokines in the pathogenesis of rheumatoid arthritis. *J Clin Invest.* 2014;124(5): 1865-7.

5. Yin X, *et al.* CCL8 secreted by tumor-associated macrophages promotes invasion and stemness of glioblastoma cells via ERK1/2 signaling. *Lab Invest.* 2016;96(2): 137-48.

Endotoxin

Less than 1.0 EU/μg as determined by LAL method.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.

Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.