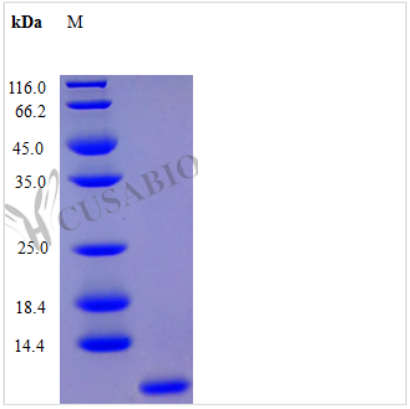
Recombinant Human Growth-regulated alpha protein (CXCL1)

Product Code	CSB-AP000631HU
Abbreviation	Recombinant Human CXCL1 protein (Active)
Uniprot No.	P09341
Storage Buffer	Lyophilized from a 0.2 μm filtered concentrated solution in 20 mM PB, pH 7.4, 50 mM NaCl.
Product Type	Chemokines
Immunogen Species	Homo sapiens (Human)
Biological Activity	Fully biologically active when compared to standard. The biological activity determined by a chemotaxis bioassay using human peripheral blood neutrophils is in a concentration range of 10-50 ng/ml.
Purity	>97% as determined by SDS-PAGE.
Sequence	ASVATELRCQ CLQTLQGIHP KNIQSVNVKS PGPHCAQTEV IATLKNGRKA CLNPASPIVK KIIEKMLNSD KSN
Research Area	Immunology
Source	E.Coli
Target Names	CXCL1
Expression Region	35-107aa
Tag Info	Tag-Free
Mol. Weight	7.9 kDa
Protein Length	Full Length of Mature Protein
PubMed ID	2890161; 2970963; 2129556; 15489334; 10095777; 2182761; 2655583; 1755384; 15340161; 2670560; 8397104; 8089846; 7806518

Image



Description

The Recombinant Human CXCL11 protein is an invaluable research tool for

scientists working in the field of immunology. This C-X-C motif chemokine 11, commonly referred to as CXCL11, ITAC, SCYB11, or SCYB9B, is produced in E. coli and encompasses the 22-94aa expression region of the full-length mature protein. The tag-free protein is supplied in lyophilized powder form, allowing for easy reconstitution with sterile water or buffer to accommodate a broad range of experimental setups.

Quality and performance are of utmost importance to us, and our Recombinant Human CXCL11 protein exhibits a purity of >97% as determined by SDS-PAGE and HPLC analysis. Furthermore, endotoxin levels are kept below 1.0 EU/μg, as assessed by the LAL method. The protein demonstrates full biological activity in a chemotaxis bioassay using human IL-2 activated human T-lymphocytes, with an effective concentration range of 0.1-10 ng/ml.

Over time, numerous studies have investigated the role of CXCL11 in immune regulation. For example, Cole *et al*. (1998)[1] initially identified CXCL11 as an IFN-inducible T cell α-chemoattractant, while Loetscher *et al*. (2001)[2] reported its involvement in inflammatory processes. Further research by Sørensen *et al*. (2003)[3] highlighted the role of CXCL11 in multiple sclerosis, and Kanda *et al*. (2012)[4] revealed its importance in antiviral immunity. These studies underscore the significance of CXCL11 in the immune system and its potential as a therapeutic target for immune-related diseases.

References:
1. Cole KE, *et al*. Interferon-inducible T cell alpha chemoattractant (I-TAC): A novel non-ELR CXC chemokine with potent activity on activated T cells through selective high affinity binding to CXCR3. J Exp Med. 1998;187(12): 2009-21.
2. Loetscher P, *et al*. Chemokine receptor specific for IP10 and mig: structure, function, and expression in activated T-lymphocytes. J Exp Med. 2001;184(3): 963-9.
3. Sørensen TL, *et al*. Expression of specific chemokines and chemokine receptors in the central nervous system of multiple sclerosis patients. J Clin Invest. 2003;111(6): 805-15.
4. Kanda N, *et al*. C-X-C motif chemokine 11 produced by lymphatic endothelial cells enhances the antimicrobial immunity of patients with atopic dermatitis. J Allergy Clin Immunol. 2012;129(5): 1378-85.e3.

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