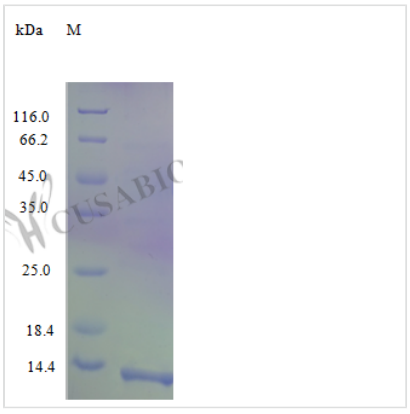
Recombinant Human C-C motif chemokine 17 protein (CCL17) (Active)

Product Code	CSB-AP000611HU
Abbreviation	Recombinant Human CCL17 protein (Active)
Uniprot No.	Q92583
Form	Lyophilized powder
Storage Buffer	Lyophilized from a 0.2 μm filtered 20mM PB, pH 7.4, 150mM NaCl
Product Type	Chemokine
Immunogen Species	Homo sapiens (Human)
Biological Activity	Fully biologically active when compared to standard. The biological activity determined by a chemotaxis bioassay using human T-lymphocytes is in a concentration range of 1.0-10 ng/ml.
Purity	>97% as determined by SDS-PAGE.
Sequence	ARGTNVGREC CLEYFKGAIP LRKLKTWYQT SEDCSRDAIV FVTVQGRAIC SDPNNKRVKN AVKYLQSLER S
Research Area	Immunology
Source	E.coli
Target Names	CCL17
Expression Region	24-94aa
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	8.1 kDa
Protein Length	Full Length of Mature Protein
PubMed ID	8702936; 10493829; 15489334; 9521068; 10540332; 12832759

Image



Description

This recombinant human CCL17 is produced in E.coli. It boasts over 97% purity by SDS-PAGE and below 1.0 EU/μg endotoxin levels by the LAL method. It has been validated as an active protein by a chemotaxis bioassay using human T-lymphocytes, shows a concentration range of 1.0-10 ng/ml. Provided as lyophilized powder, it is ideal for immunology research, particularly in investigating MET's role in tumor progression and therapy resistance.

Human CCL17, also called TARC, is a pivotal chemokine that orchestrates immune responses through its interactions with CCR4, particularly in the context of T cell recruitment and inflammation [1][2]. CCL17 is primarily produced by dendritic cells (DCs) and macrophages. The CCL17-CCR4 interaction is crucial for the trafficking of these cells to sites of inflammation, thereby influencing various immune responses, including those associated with allergic reactions and autoimmune diseases [3][4].

In inflammatory conditions, CCL17 has been shown to facilitate the migration of Tregs and other immune cells, contributing to the maintenance of immune homeostasis and the modulation of inflammatory responses [5][6]. Additionally, CCL17's involvement in fibrotic processes indicates its pro-fibrotic properties, particularly in organs such as the lung and kidney [7][8].

References:

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[2] A. Iellem, M. Mariani, R. Lang, H. Recalde, P. Panina-Bordignon, F. Sinigagliaet al., Unique chemotactic response profile and specific expression of chemokine receptors ccr4 and ccr8 by cd4+cd25+ regulatory t cells, The Journal of Experimental Medicine, vol. 194, no. 6, p. 847-854, 2001. https://doi.org/10.1084/jem.194.6.847
[3] H. Hirata, T. Yukawa, A. Tanaka, T. Miyao, T. Fukuda, Y. Fukushimaet al., Th2 cell differentiation from naive cd4+ t cells is enhanced by autocrine cc chemokines in atopic diseases, Clinical & Experimental Allergy, vol. 49, no. 4, p. 474-483, 2018. https://doi.org/10.1111/cea.13313
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[6] C. Weber, S. Meiler, Y. Döring, M. Koch, M. Drechsler, R. Megenset al., Ccl17-expressing dendritic cells drive atherosclerosis by restraining regulatory t cell homeostasis in mice, Journal of Clinical Investigation, vol. 121, no. 7, p. 2898-2910, 2011. https://doi.org/10.1172/jci44925
[7] Y. Chen, H. Hsu, C. Lin, S. Pan, S. Liu, C. Wuet al., Inflammatory macrophages switch to ccl17?expressing phenotype and promote peritoneal fibrosis, The Journal of Pathology, vol. 250, no. 1, p. 55-66, 2019. https://doi.org/10.1002/path.5350

[8] T. Inoue, S. Fujishima, E. Ikeda, O. Yoshie, N. Tsukamoto, S. Aisoet al., Ccl22 and ccl17 in rat radiation pneumonitis and in human idiopathic pulmonary fibrosis, European Respiratory Journal, vol. 24, no. 1, p. 49-56, 2004. https://doi.org/10.1183/09031936.04.00110203

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.