

TARC/CCL17 Protein, Human (sf9, His)

Cat. No.:	HY-P74531
Synonyms:	C-C motif chemokine 17; CCL17; SCYA17; TARC
Species:	Human
Source:	Sf9 insect cells
Accession:	Q92583 (M1-S94)
Gene ID:	6361
Molecular Weight:	Approximately 12 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20 mM Tris, 500 mM NaCl, pH 7.4, 10% Glycerol. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>CCL17, also known as thymic and activating regulatory chemokine (TARC), is a powerful chemokine commonly associated with type 2 immune responses, and its encoding gene is located on chromosome 16 in humans. CCL17 can be produced by thymic and antigen-presenting cells such as dendritic cells, macrophages, and monocytes, and acts by binding to the cell surface chemokine receptor CCR4. CCR4 is a G protein-coupled receptor expressed as a chemokine receptor on Th2 cells, cutaneous lymphocytes skin-localized T cells and regulatory T cells, and also on T cells in adult T-cell leukemia/lymphoma and cutaneous T-cell lymphoma. CCR4 has an important role in the regulation of immune homeostasis and activation of innate immune cells in the central nervous system (CNS). CCL17 plays an important role in the recruitment of CCR4-positive Th2 lymphocytes, is involved in the transport of Th2 cells in eosinophil-associated diseases (including AA and AD) and may be involved in the transport of tumor cells in certain T-cell lymphomas. CCL17 is also thought to be a homeostatic and inducible neuromodulatory chemokine that maintains the typical highly branching morphology of hippocampal microglia under homeostatic conditions and promotes adaptation of microglia morphology to acute LPS-induced neuroinflammation. CCL17 is also associated with autoimmune and allergic disorders^{[1][2]}.</p>
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REFERENCES

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- [1]. Julien Catherine, et al. What does elevated TARC/CCL17 expression tell us about eosinophilic disorders? *Semin Immunopathol.* 2021 Jun;43(3):439-458.
- [2]. Jan Korbecki, et al. CC Chemokines in a Tumor: A Review of Pro-Cancer and Anti-Cancer Properties of the Ligands of Receptors CCR1, CCR2, CCR3, and CCR4. *Int J Mol Sci.* 2020 Nov 9;21(21):8412.
- [3]. Yoshiki Mizukami, et al. CCL17 and CCL22 chemokines within tumor microenvironment are related to accumulation of Foxp3+ regulatory T cells in gastric cancer. *Int J Cancer.* 2008 May 15;122(10):2286-93.
- [4]. Amr A Al-haidari, et al. CCR4 mediates CCL17 (TARC)-induced migration of human colon cancer cells via RhoA/Rho-kinase signaling. *Int J Colorectal Dis.* 2013 Nov;28(11):1479-87.
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Caution: Product has not been fully validated for medical applications. For research use only.

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