TECK/CCL25 Protein, Human

Cat. No.:	HY-P7294
Synonyms:	rHuTECK/CCL25; C-C motif chemokine 25; SCYA25
Species:	Human
Source:	E. coli
Accession:	O15444-1 (Q24-L150)
Gene ID:	6370
Molecular Weight:	Approximately 14.3 kDa

PROPERTIES

AA Sequence	M Q G V F E D C C L A Y H Y P I G W A V L R R A W T Y R I Q E V S G S C N L P A A I F Y L P K R H R K V C G N P K S R E V Q R A M K L L D A R N K V F A K L H H N T Q T F Q A G P H A V K K L S S G N S K L S S S K F S N P I S S S K R N V S L L I S A N S G L
Biological Activity	Full biological activity determined by a chemotaxis bioassay using human monocytes is in a concentration range of 1.0-10 ng/ml.
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against 20 mM PB, pH 7.4, 150 mM NaCl.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
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	CCL25, also known as thymus-expressing chemokine TECK, a small cell factor of the CC chemokine family, is located on chromosome 19 in the human genome. CCL25 is mainly expressed in the thymus and intestinal epithelium, but can also be produced by parenchymal cells such as vascular endothelial cells, which can migrate immature T cells to the thymus for mature release. It is chemotactic for thymocytes, macrophages and dendritic cells and can act in combination with the chemokine receptor CCR9. Among others, CCR9 is found as a G protein-coupled receptor expressed on the cell membranes

of dendritic cells, neutrophils, lymphocytes, monocyte macrophages and vascular endothelial cells. CCR9 belongs to the β-chemokine receptor family and the gene is located on chromosome 3 at p21.31. CCL25-CCR9 is involved in the development of T cells and cell migration to the small intestine, as well as in a variety of inflammatory diseases and promotes inflammatory responses, including cardiovascular disease (CVD), hepatitis, and arthritis. The interaction of CCL25 with CCR9 also supports T cell survival during thymic maturation by inhibiting apoptosis through Akt/protein kinase B activation[1][2].

REFERENCES

[1]. Marcus Svensson, et al. CCL25 mediates the localization of recently activated CD8alphabeta(+) lymphocytes to the small-intestinal mucosa. J Clin Invest. 2002 Oct;110(8):1113-21.

[2]. Xue Wu, et al. The Roles of CCR9/CCL25 in Inflammation and Inflammation-Associated Diseases. Front Cell Dev Biol. 2021 Aug 19;9:686548.

[3]. Erica L Johnson, et al. CCL25-CCR9 interaction modulates ovarian cancer cell migration, metalloproteinase expression, and invasion. World J Surg Oncol. 2010 Jul 22;8:62.

[4]. Crystal Johnson-Holiday, et al. CCR9-CCL25 interactions promote cisplatin resistance in breast cancer cell through Akt activation in a PI3K-dependent and FAK-independent fashion. World J Surg Oncol. 2011 May 3;9:46.

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