

6Ckine/CCL21A Protein, Mouse

Cat. No.:	HY-P72756
Synonyms:	C-C motif chemokine 21a; 6Ckine; TCA4; Ccl21a; Scya21; Scya21a
Species:	Mouse
Source:	E. coli
Accession:	P84444 (S24-G133)
Gene ID:	18829
Molecular Weight:	Approximately 16 kDa

PROPERTIES

AA Sequence	S D G G G Q D C C L K Y S Q K K I P Y S I V R G Y R K Q E P S L G C P I P A I L F S P R K H S K P E L C A N P E E G W V Q N L M R R L D Q P P A P G K Q S P G C R K N R G T S K S G K K G K G S K G C K R T E Q T Q P S R G
Biological Activity	Measured by its ability to chemoattract Mouse T lymphocytes. The ED ₅₀ for this effect is 26.18 ng/mL, corresponding to a specific activity is 3.820×10 ⁴ U/mg.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4 or 20 mM PB, 150 mM NaCl, pH 7.4.
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. 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	<p>CCL21, also known as exodus-2 and secondary lymphoid chemokine (SLC), is a small cytokine belonging to the CC chemokine family and is located on chromosome 9 in the human genome. It binds to glycosaminoglycan (GAG) and is anchored to the surface of endothelial cells. As a chemokine, CCL21 inhibits hematopoiesis and stimulates chemotaxis, and is chemotactic in vitro for thymocytes and activated T cells, but not for B cells, macrophages or neutrophils. At the same time, CCL21 is a potent stimulator of T cell migration and adhesion, binding to the glycoprotein PSGL-1 on T cells to promote the migration of T cells to secondary lymphoid organs. CCL21 can act through chemokine receptors CCR7 and</p>
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CXCR3. Among them, CCR7 is a GPCR that is normally expressed by T cell subsets central memory cells, thymic T cells, B cells, mature DCs and other rare cell subsets. ccl21 can function as a microglia activator in the CNS and is expressed exclusively in endangered or mechanically damaged neurons^{[1][2]}.

REFERENCES

- [1]. Balsam Rizeq, et al. The Role of CCL21/CCR7 Chemokine Axis in Breast Cancer Progression. *Cancers (Basel)*. 2020 Apr 23;12(4):1036.
- [2]. Knut Biber, et al. Neuronal CCL21 up-regulates microglia P2X4 expression and initiates neuropathic pain development. *EMBO J*. 2011 May 4;30(9):1864-73.
- [3]. Michael Hirth, et al. CXCL10 and CCL21 Promote Migration of Pancreatic Cancer Cells Toward Sensory Neurons and Neural Remodeling in Tumors in Mice, Associated With Pain in Patients. *Gastroenterology*. 2020 Aug;159(2):665-681.e13.
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Caution: Product has not been fully validated for medical applications. For research use only.

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