

6Ckine/CCL21A Protein, Mouse (sf9)

Cat. No.:	HY-P75546
Synonyms:	C-C motif chemokine 21a; 6Ckine; TCA4; Ccl21a; Scya21; Scya21a
Species:	Mouse
Source:	Sf9 insect cells
Accession:	P84444 (S24-G133)
Gene ID:	18829
Molecular Weight:	Approximately 12.1 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 40 mM Tris, 300 mM NaCl, pH 7.4. 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	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 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]} .
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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.

Caution: Product has not been fully validated for medical applications. For research use only.

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