6Ckine/CCL21 Protein, Rhesus Macaque (sf9)

Cat. No.:	HY-P76194
Synonyms:	C-C motif chemokine 21; Beta-chemokine exodus-2; 6Ckine; SLC; CCL21; SCYA21
Species:	Rhesus Macaque
Source:	Sf9 insect cells
Accession:	Q8HYP5 (M1-P131)
Gene ID:	574183
Molecular Weight:	Approximately 12 kDa.

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS. 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.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
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].

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.

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