CCL4 Protein, Human (P.pastoris, His)

Cat. No.:	HY-P74342
Synonyms:	MIP-1β/CCL4; C-C motif chemokine 4; LAG-1; SCYA4
Species:	Human
Source:	P. pastoris
Accession:	P13236 (A24-Q92)
Gene ID:	6351
Molecular Weight:	12-16 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 0.1 % TFA, 14 % CAN.. 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	CCL4, also known as macrophage inflammatory protein (MIP-1β), belongs to the CC chemokine family and is a protein encoded in humans by the CCL4 gene, which belongs to the 17q11-q21 region of chromosome 17 and has a molecular weight of approximately 8-10 kDa. CCL4 can be produced by monocytes, B cells, T cells, NK cells, dendritic cells, neutrophils, fibroblasts, endothelial cells, and epithelial cells[1]. CCL4 acts as a chemokine that binds to the G protein-coupled receptors CCR5 and CCR8 and acts as a chemoattractant for natural killer cells, monocytes and various other immune cells at sites of inflammation or damaged tissues. In parallel, CCL4 can also act as a major HIV suppressor produced by CD8+ T cells, inducing dose-dependent inhibition of different strains of HIV-1, HIV-2 and monkey immunodeficiency virus (SIV). Among them, the N-terminal processed form CCL4 (3-69), produced by proteolytic cleavage of peripheral blood lymphocytes after secretion, retains the ability to induce down-regulation of chemokine receptor CCR5 surface expression and inhibit CCR5-mediated HIV-1 entry into T cells[2].

REFERENCES

[1]. S G Irving, et al. Two inflammatory mediator cytokine genes are closely linked and variably amplified on chromosome 17q. Nucleic Acids Res. 1990 Jun 11;18(11):3261-

70.

[2]. Patricia Menten, et al. Macrophage inflammatory protein-1. Cytokine Growth Factor Rev. 2002 Dec;13(6):455-81.

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