

MIP-3 alpha/CCL20 Protein, Bovine (*P. pastoris*, His)

Cat. No.:	HY-P700551
Synonyms:	rHuMIP-3 α /CCL20; C-C motif chemokine 20; MIP3A; SCYA20
Species:	Bovine
Source:	<i>P. pastoris</i>
Accession:	Q8SQB1 (A27-M96)
Gene ID:	281666
Molecular Weight:	10.1 kDa

PROPERTIES

AA Sequence	A S N F D C C L R Y T E R I L H P S I L V G F T Q Q L A N E A C D I N A V V F Y T R K K L A V C A D P K K K W V K Q V V H M L S Q R V K R M
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μ m filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/ μ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μ g/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	<p>MIP-3 alpha/CCL20 Protein serves as a ligand for C-C chemokine receptor CCR6, initiating a potent chemotactic response and mobilizing intracellular calcium ions upon CCR6 binding and activation. The CCL20-CCR6 ligand-receptor pair plays a crucial role in chemotaxis, attracting dendritic cells (DC), effector/memory T-cells, and B-cells. This partnership is particularly significant in skin and mucosal surfaces under various conditions, including homeostasis, inflammation, cancer, and autoimmune diseases. Acting as a chemotactic factor, CCL20 specifically attracts lymphocytes and, to a lesser extent, neutrophils, excluding monocytes. Furthermore, it is involved in recruiting both pro-inflammatory IL17-producing helper T-cells (Th17) and regulatory T-cells (Treg) to inflammation sites. CCL20 is essential for the optimal migration of thymic natural regulatory T cells (nTregs) and DN1 early thymocyte progenitor cells. Additionally, it positively regulates sperm motility and chemotaxis by binding to CCR6, triggering Ca²⁺ mobilization in sperm, a crucial factor for motility. CCL20 may also contribute to the formation and function of mucosal lymphoid tissues by directing lymphocytes and dendritic cells towards epithelial cells.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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