

MIP-1 alpha/CCL3 Protein, Mouse (His)

Cat. No.:	HY-P7768
Synonyms:	rMuCCL3, His; C-C motif chemokine 3; Heparin-binding chemotaxis protein; LD78 alpha; MIP-1 alpha; SCYA3; CCL3
Species:	Mouse
Source:	E. coli
Accession:	P10855 (A24-A92)
Gene ID:	20302
Molecular Weight:	Approximately 15 kDa

PROPERTIES

AA Sequence	H H H H H A P Y G A D T P T A C C F S Y S R K I P R Q F I V D Y F E T S S L C S Q P G V I F L T K R N R Q I C A D S K E T W V Q E Y I T D L E L N A
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against 20 mM Tris, 150 mM NaCl, 5% Trehalose, 1 mM EDTA, pH 8.0.
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	<p>CCL3 also known as macrophage inflammatory protein 1-a, is a member of the CC subfamily. It's known that CCL3 is produced by monocytes/macrophages, lymphocytes, neutrophils as well as immune cells such as basophils, mast cells, fibroblasts, and dendritic cells. Meanwhile, CCL3 exerts various biological effects by binding to its three cell surface receptors, including CCR1, CCR3, and CCR5. MIP-1a induces a variety of pro-inflammatory activities such as leukocyte chemotaxis, and promotes the entry of T cells into the inflammatory tissue region from blood circulation. Chemotactic CD4+ cells, CD8+ cells, natural killer cells, and dendritic cells bind to the corresponding receptors and coordinate the occurrence of immune reactions in the immune response site by migrating through vascular endothelial cells. In addition, MIP-1a is considered as a key inflammatory mediator in granuloma, asthma, T1D as well as other autoimmune diseases^[1].</p>
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REFERENCES

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- [1]. Zhang G, et al. CCL3 participates in the development of rheumatoid arthritis by activating AKT. *Eur Rev Med Pharmacol Sci*. 2018 Oct;22(20):6625-6632.
- [2]. Giovanni Bernardini, et al. CCL3 and CXCL12 regulate trafficking of mouse bone marrow NK cell subsets. *Blood*. 2008 Apr 1;111(7):3626-34.
- [3]. Ioannis Ntanasis-Stathopoulos, et al. CCL3 Signaling in the Tumor Microenvironment. *Adv Exp Med Biol*. 2020;1231:13-21.
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Caution: Product has not been fully validated for medical applications. For research use only.

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