

## MIP-3 alpha/CCL20 Protein, Rat (HEK293)

<b>Cat. No.:</b>	HY-P7261
<b>Synonyms:</b>	rRtMIP-3 $\alpha$ /CCL20; C-C motif chemokine 20; MIP3A; SCYA20
<b>Species:</b>	Others
<b>Source:</b>	HEK293
<b>Accession:</b>	P97884 (A26-M96)
<b>Gene ID:</b>	29538
<b>Molecular Weight:</b>	Approximately 10.13 kDa

### PROPERTIES

<b>AA Sequence</b>	A S N F D C C L T Y    T K N V Y H H A R N    F V G F T T Q M A D    E A C D I N A I I F H L K S K R S V C A    D P K Q I W V K R I    L H L L S L R T K K    M
<b>Biological Activity</b>	Data is not available.
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4.
<b>Endotoxin Level</b>	<1 EU/ $\mu$ g, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 $\mu$ g/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	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.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	CCL20, also known as macrophage inflammatory protein 3 alpha (MIP-3-alpha) and liver-activated regulatory chemokine (LARC), is a small cytokine belonging to the CC chemokine family and is located on chromosome 2 in the human genome. It is expressed at lower levels in the thymus, testis, prostate and intestine. CCL20 binds to and acts as a chemokine receptor CCR6 and synergistically inhibits the function of CD8 T cells with CCR6. CCL20 has antimicrobial activity and has been implicated in autoimmune diseases such as inflammatory bowel disease, rheumatoid arthritis, and psoriasis, as well as oncological diseases. It can induce Tregs to invade tumor tissue, recruit dendritic cells to promote immunosuppression, and induce endothelial cell proliferation and neointima formation <sup>[1][2]</sup> .
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## REFERENCES

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- [2]. M Baba, et al. Identification of CCR6, the specific receptor for a novel lymphocyte-directed CC chemokine LARC. *J Biol Chem*. 1997 Jun 6;272(23):14893-8.
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- [4]. Skovdahl HK, et al. C-C Motif Ligand 20 (CCL20) and C-C Motif Chemokine Receptor 6 (CCR6) in Human Peripheral Blood Mononuclear Cells: Dysregulated in Ulcerative Colitis and a Potential Role for CCL20 in IL-1 $\beta$  Release. *Int J Mol Sci*. 2018 Oct 20;19(10).
- [5]. Benkheil M, et al. CCL20, a direct-acting pro-angiogenic chemokine induced by hepatitis C virus (HCV): Potential role in HCV-related liver cancer. *Exp Cell Res*. 2018 Nov 15;372(2):168-177.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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