

# Screening Libraries

**Proteins** 

## **Product** Data Sheet



### HCC-4/CCL16 Protein, Human

**Cat. No.:** HY-P7197

Synonyms: rHuHCC-4/CCL16; C-C motif chemokine 16; SCYA16

Species: Human
Source: E. coli

Accession: 015467 (Q24-Q120)

Gene ID: 6360

Molecular Weight: 10-15 kDa

#### **PROPERTIES**

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AA	~	മവ	11	Δ	n	~	Δ

QPKVPEWVNT PSTCCLKYYE KVLPRRLVVG YRKALNCHLP AIIFVTKRNR EVCTNPNDDW VQEYIKDPNL PLLPTRNLST

VKIITAKNGQ PQLLNSQ

#### **Biological Activity**

- 1. Full biological activity determined by a chemotaxis bioassay using human monocytes is in a concentration range of 10-100 ng/mL.
- 2. Measured by its ability to chemoattract THP-1 human acute monocytic leukemia cells. The ED<sub>50</sub> this effect is 1.25  $\mu$ g/mL, corresponding to a specific activity is 800 U/mg.

#### **Appearance**

Lyophilized powder.

Formulation

Lyophilized from a 0.2  $\mu m$  filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4.

**Endotoxin Level** 

<1 EU/µg, determined by LAL method.

Reconsititution

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).

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

CCL16, also known as CC chemokine 4, liver expressed chemokine (LEC) and monotactin-1 (MTN-1), is a small cytokine belonging to the CC chemokine family, a cluster of chemokines located on human chromosome 17. CCL16 is also a ligand for the histamine H4 receptor. CCL16 can chemotacticize monocytes and lymphocytes but not neutrophils. Recent studies have shown that CCL16 increases tumor rejection, antigen presentation by macrophages, and angiogenic activity of vascular

endothelial cells. On the other hand, CCL16 may also enhance the anticancer effects of cytotoxic T cells and dendritic cell (DC) lymphocytes<sup>[1][2]</sup>.

#### **REFERENCES**

- [1]. Jan Korbecki, et al. CC Chemokines in a Tumor: A Review of Pro-Cancer and Anti-Cancer Properties of the Ligands of Receptors CCR1, CCR2, CCR3, and CCR4. Int J Mol Sci. 2020 Nov 9;21(21):8412.
- [2]. Jiahui Xu, et al. Silencing XIST mitigated lipopolysaccharide (LPS)-induced inflammatory injury in human lung fibroblast WI-38 cells through modulating miR-30b-5p/CCL16 axis and TLR4/NF-κB signaling pathway. Open Life Sci. 2021 Feb 6;16(1):108-127.
- [3]. In Sik Kim, et al. Differential CCR1-mediated chemotaxis signaling induced by human CC chemokine HCC-4/CCL16 in HOS cells. FEBS Lett. 2005 Nov 7;579(27):6044-8.
- [4]. Strasly M, et al. CCL16 activates an angiogenic program in vascular endothelial cells. Blood. 2004 Jan 1;103(1):40-9.

Caution: Product has not been fully validated for medical applications. For research use only.

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