

**California Bioscience** 

# **Product Datasheet**

| Product Name | Recombinant Human LEC/NCC-4  |
|--------------|--|
| Cata No      | CB501249   |
| Source       | Escherichia Coli.  |
| Synonyms     | C-C motif chemokine 16, Small-inducible cytokine A16, IL-10-inducible chemokine, |
|              | Chemokine LEC, Monotactin-1, Chemokine CC-4, Lymphocyte and monocyte             |
|              | chemoattractant, CCL-16, HCC-4, HCC4, NCC4, NCC-4, Liver Expressed               |
|              | Chemokine, LMC, LCC-1, LCC1, MTN-1, MTN1, SCYL4, ckB12, SCYA16, LEC,             |
|              | ILINCK, MGC117051.   |

### Description

Human CCL16, also called HCC-4, liver-expressed chemokine (LEC), and lymphocyte and monocyte chemoattractant (LMC), is a novel CC chemokine recognized by bioinformatics. NCC-4 cDNA encodes a 120 amino acids along with a 23 amino acids signal peptide that is cleaved to generate 97 amino acid protein. HCC4 is vaguely related to other CC chemokines, showing less than 30% sequence identity. Among CC chemokines, CCL-16 has the largest similarity to HCC-1. 2 potential polyadenylation signals are present on the human HCC-4 gene, and as a result, 2 transcripts containing roughly 1,500 base pairs and 500 base pairs have been detected. HCC-4 is expressed weakly by some lymphocytes, including NK cells, T cells, and some T cell clones. The expression of HCC-4 in monocytes is greatly upregulated in the presence of IL-10.

CCL16 shows chemotactic activity for lymphocytes and monocytes rather than to neutrophils. NCC-4 has potent myelosuppressive activity, suppresses proliferation of myeloid progenitor cells. CCL16 demonstrates chemotactic activity for monocytes and thp-1 monocytes, rather than for resting lymphocytes and neutrophils. HCC-4 induces a calcium flux in thp-1 cells that desensitized prior to the expression of rantes. CCL16 Human Recombinant produced in E.Coli is a non-glycosylated, Polypeptide chain containing 97 amino acids and having a molecular mass of 11.2 kDa.

The CCL16 is purified by proprietary chromatographic techniques.

### **Physical Appearance**

Sterile Filtered White lyophilized (freeze-dried) powder.

### **Biological Activity**

Determined by its ability to chemoattract total human monocytes using a concentration range of 10-100 ng/ml.

### Purity

Greater than 97.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

#### Formulation

The CCL16 protein was lyophilized from a concentrated (1mg/ml) sterile solution containing 20mM PBS pH-7.4 and 0.15M sodium chloride. **Reconstitution** 

It is recommended to reconstitute the lyophilized

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CCL16in sterile  $18M\Omega$ -cm H2O not less than  $100\mu$ g/ml, which can then be further diluted to other aqueous solutions.

## Stability

Lyophilized CCL16 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution CCL16 should be stored at 4°C between 2-7 days and for future use below

# -18℃.

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For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

# Sequence

QPKVPEWVNTPSTCCLKYYEKVLPRRLVVGYRKA LNCHLPAIIFVTKRNREVCTNP NDDWVQEYIKDPNLPLLPTRNLSTVKIITAKNGQP QLLNSQ