

#### DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human CCL16/HCC-4 in direct ELISAs and Western blots.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 70218
<b>Purification</b>	Protein A or G purified from ascites
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human CCL16/HCC-4 Gln24-Gln120 Accession # O15467
<b>Conjugate</b>	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
<b>Formulation</b>	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.  *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
<b>Intracellular Staining by Flow Cytometry</b>	0.25-1 µg/10 <sup>6</sup> cells	THP-1 human acute monocytic leukemia cell line fixed with paraformaldehyde and permeabilized with saponin

#### PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

#### BACKGROUND

Human HCC-4, also named NCC-4, liver-expressed chemokine (LEC), and lymphocyte and monocyte chemoattractant (LMC), is a novel CC chemokine identified through bioinformatics. HCC-4 cDNA encodes a 120 amino acid (aa) residue precursor protein with a 23 aa residue predicted signal peptide that is cleaved to generate a 97 aa residue mature protein. HCC-4 is distantly related to other CC chemokines, exhibiting less than 30% aa sequence identity. Among these CC chemokines, HCC-4 has the most similarity to HCC-1. Two potential polyadenylation signals are present on the human HCC-4 gene, and as a result, two transcripts containing approximately 1,500 base pairs and 500 base pairs have been detected. HCC-4 is expressed weakly by some lymphocytes, including NK cells, γδ T cells, and some T cell clones. The expression of HCC-4 in monocytes is highly upregulated in the presence of IL-10. The HCC-4 gene has been mapped to chromosome 17q where multiple CC chemokines are clustered.

Recombinant HCC-4 has been shown to chemoattract human monocytes and THP-1 cells but not resting lymphocytes or neutrophils. HCC-4 has also been found to suppress proliferation of myeloid progenitor cells. The HCC-4 induced calcium flux in THP-1 cells can be desensitized by prior exposure to RANTES, suggesting that HCC-4 and RANTES share the same receptor in THP-1 cells.

#### References:

1. Shoudai, K. *et al.* (1998) *Biochim. Biophys. Acta* **1396**:273.
2. Hedrick, J. *et al.* (1998) *Blood* **91**:4242.
3. Youn, B-S. *et al.* (1998) *BBRC* **247**:217.

#### PRODUCT SPECIFIC NOTICES

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