

DESCRIPTION

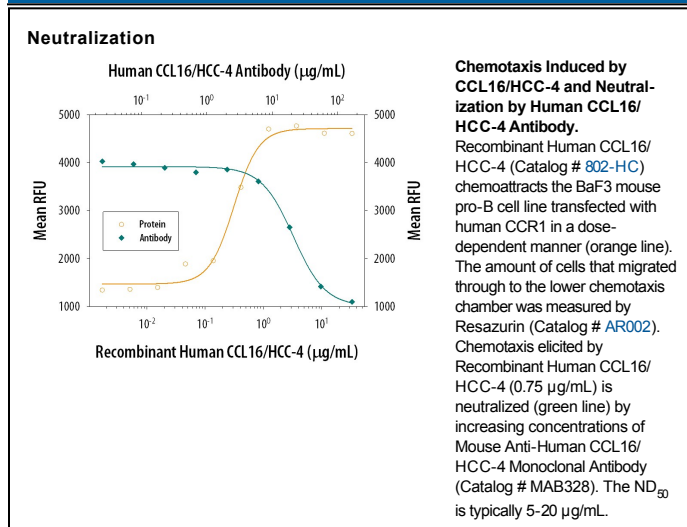
Species Reactivity	Human
Specificity	Detects human CCL16/HCC-4 in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG ₁ Clone # 70218
Purification	Protein A or G purified from ascites
Immunogen	<i>E. coli</i> -derived recombinant human CCL16/HCC-4 Gln24-Gln120 Accession # O15467
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

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
Western Blot	1 µg/mL	Recombinant Human CCL16/HCC-4 (Catalog # 802-HC)
Immunohistochemistry	8-25 µg/mL	Immersion fixed paraffin-embedded sections of human tonsil
Intracellular Staining by Flow Cytometry	0.25 µg/10 ⁶ cells	THP-1 human acute monocytic leukemia cell line fixed with paraformaldehyde and permeabilized with saponin
Human CCL16/HCC-4 Sandwich Immunoassay		Reagent
ELISA Capture	2-8 µg/mL	Human CCL16/HCC-4 Antibody (Catalog # MAB328)
ELISA Detection	0.1-0.4 µg/mL	Human CCL16/HCC-4 Biotinylated Antibody (Catalog # BAF802)
Standard		Recombinant Human CCL16/HCC-4 (Catalog # 802-HC)
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	
Neutralization	Measured by its ability to neutralize CCL16/HCC-4-induced chemotaxis in the BaF3 mouse pro-B cell line transfected with human CCR1. The Neutralization Dose (ND ₅₀) is typically 5-20 µg/mL in the presence of 0.75 µg/mL Recombinant Human CCL16/HCC-4.	

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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, $\gamma\delta$ 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.