

DESCRIPTION

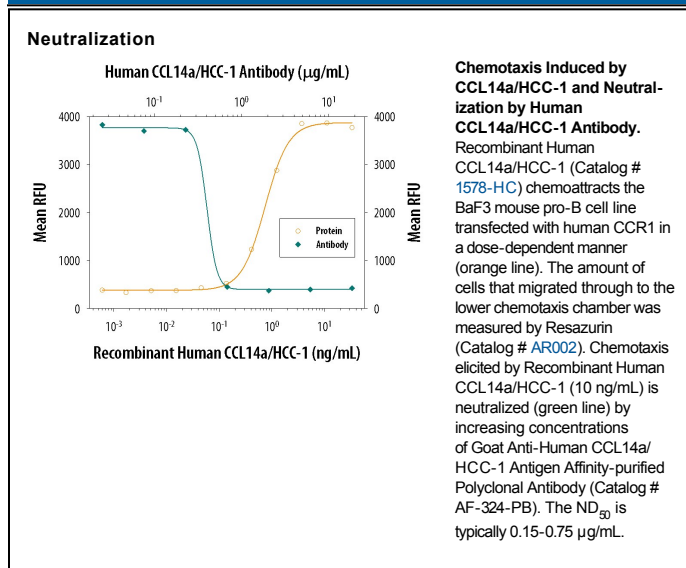
Species Reactivity	Human
Specificity	Detects human CCL14a/HCC-1 in direct ELISAs and Western blots. In direct ELISAs and Western blots (non-reducing conditions), less than 5% cross-reactivity with recombinant human (rh) MCP-2, rhMCP-3, recombinant mouse (rm) C10, and rmMIP-1 β is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human CCL14a/HCC-1 Thr20-Asn93 Accession # Q16627
Endotoxin Level	<0.10 EU per 1 μ g of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μ m 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	0.1 μ g/mL	Recombinant Human CCL14a/HCC-1 aa 20-93 (Catalog # 324-HC)
Neutralization		Measured by its ability to neutralize CCL14a/HCC-1-induced chemotaxis in the BaF3 mouse pro-B cell line transfected with human CCR1. The Neutralization Dose (ND ₅₀) is typically 0.15-0.75 μ g/mL in the presence of 10 ng/mL Recombinant Human CCL14a/HCC-1 aa 28-93.

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 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

HCC-1 (Hemofiltrate CC Chemokine-1) was originally isolated from the hemofiltrate of human patients with chronic renal failure (1). It belongs to the CC chemokine superfamily and has been designated CCL14a. HCC-1/CCL14a cDNA encodes a 93 amino acid (aa) residue precursor with a 19 aa signal peptide that is cleaved to form the 74 aa secreted protein (aa 20-93). By alternative splicing, a second longer isoform named HCC-3/CCL14b, which includes sequences from exon 3, also exists (2). HCC-1/CCL14a is expressed constitutively in various normal tissues including spleen, liver, muscle, gut and bone marrow. It circulates at nanomolar concentrations in human plasma. Different post-translationally modified HCC-1/CCL14a, including O-glycosylated and N-terminally truncated variants of HCC-1/CCL14a, have been identified (3, 4). Whereas the 74 aa peptide is a weak CCR1 agonist, the proteolytically processed, truncated HCC-1/CCL14a (aa 28-93) is a highly potent agonist of CCR1, CCR5 and to a lesser extent, CCR3. HCC-1/CCL14a (aa 28-93) promotes chemotaxis of T lymphocytes, monocytes and eosinophils, and inhibits infection of M-tropic human immunodeficiency virus type 1. Activation of the HCC-1/CCL14a precursor to active peptide is mediated by the urokinase type plasminogen activator or plasmin (5).

References:

1. Schulz-Knappe, P. *et al.* (1996) *J. Exp. Med.* **183**:295.
2. Forssmanns, U. *et al.* (2001) *J. Leukocyte Biology* **70**:357.
3. Richter, R. *et al.* (2000) *Biochemistry* **39**:10799.
4. Munch, J. *et al.* (2002) *Antimicrob. Agents Chemother.* **46**:982.
5. Vakili, J. *et al.* (2001) *J. Immunol.* **167**:3406.