

#### DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human CCL14a/HCC-1 in ELISAs and Western blots. In sandwich immunoassays, less than 0.05% cross-reactivity with recombinant human (rh) CCL16, rhCCL8, rhCCL7, rhCCL4, and rhCCL3 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human CCL14a/HCC-1 (R&D Systems, Catalog # 324-HC) Thr20-Asn93 Accession # Q16627
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

#### 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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.1 µg/mL	Recombinant Human CCL14a/HCC-1 aa 20-93 (Catalog # 324-HC)
<b>Human CCL14a/HCC-1 Sandwich Immunoassay</b>		<b>Reagent</b>
<b>ELISA Capture</b>	2-8 µg/mL	Human CCL14/HCC-1/HCC-3 Antibody (Catalog # MAB3241)
<b>ELISA Capture</b>	2-8 µg/mL	Human CCL14/HCC-1/HCC-3 Antibody (Catalog # MAB3241R)
<b>ELISA Detection</b>	0.1-0.4 µg/mL	Human CCL14a/HCC-1 Biotinylated Antibody (Catalog # BAF324)
<b>Standard</b>		Recombinant Human CCL14a/HCC-1 aa 20-93 (Catalog # 324-HC)

#### PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

#### 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.