Human CCL13/MCP-4 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF327

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CCL13/MCP-4 in direct ELISAs and Western blots. In direct ELISAs, less than 10% cross-reactivity with recombinant human (rh) MCP-1, rhMCP-2, rhMCP-3, recombinant mouse (rm) MCP-5, rhEotaxin, rhHCC-1, rhMIP-1β, rmMARC, rh6Ckine, and rmJE is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human CCL13/MCP-4 (R&D Systems, Catalog # 327-P4) Gln24-Thr98 Accession # Q99616
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.

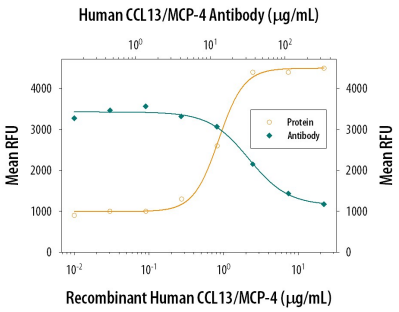
APPLICATIONS

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	0.1 µg/mL	Recombinant Human CCL13/MCP-4 (Catalog # 327-P4)
Neutralization	Measured by its ability to neutralize CCL13/MCP-4-induced chemotaxis in the BaF3 mouse pro-B cell line transfected with human CCR2A. The Neutralization Dose (ND_{50}) is typically 15-40 µg/mL in the presence of 2 µg/mL Recombinant Human CCL13/MCP-4.	

DATA

Neutralization



Chemotaxis Induced by CCL13/MCP-4 and Neutralization by Human CCL13/MCP-4 Antibody. Recombinant Human CCL13/MCP-4 (Catalog # 327-P4) chemoattracts the BaF3 mouse pro-B cell line transfected with human CCR2A in a dose-dependent manner (orange line). The amount of cells that migrated through to the lower chemotaxis chamber was measured by Resazurin (Catalog # AR002). Chemotaxis elicited by Recombinant Human CCL13/MCP-4 (2 µg/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Human CCL13/MCP-4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF327). The ND_{50} is typically 15-40 µg/mL.

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.** ● 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 CCL13 is a CC chemokine recently cloned from a human fetal and a human heart cDNA library. Human CCL13 cDNA encodes a 98 amino acid residue precursor protein with a 23 amino acid residue hydrophobic signal peptide that is cleaved to yield an 8 kDa, 75 aa mature CCL13. Mature CCL13 lacks any potential N-glycosylation sites and shares a pyroglutamate proline motif with other human MCP proteins. Human CCL13 is most homologous to MCP-1, 3 and Eotaxin, exhibiting approximately 65-66% amino acid sequence identity. CCL13 mRNA is expressed by a number of activated cell types, including endothelial cells, macrophages, bronchial epithelium and type II alveolar cells, and perhaps lymphocytes. CCL13 is a chemoattractant for monocytes and eosinophils, and activates basophils. In addition, it has been reported to be chemotactic for $CD4^+$ and $CD8^+$ T cells, with an activity almost equivalent to that of MCP-3. The bioactivities of CCL13 is most likely mediated by the CC chemokine receptors CCR-2 and CCR-3, both of which have been shown to bind CCL13.

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