Human CCL20/MIP-3α Antibody

Monoclonal Mouse IgG_1 Clone # 67310

Catalog Number: MAB360

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CCL20/MIP-3α in ELISAs and Western blots. In ELISAs, this antibody does not cross-react with recombinant human (rh) CCL19, rhCXCL1, rhCCL16, rhCCL11, recombinant mouse CCL20, or recombinant rat CCL20.
Source	Monoclonal Mouse IgG_1 Clone # 67310
Purification	Protein A or G purified from ascites
Immunogen	*E. coli*-derived recombinant human CCL20/MIP-3α Ala27-Met96 (Asn95Asp) Accession # P78556.1
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.

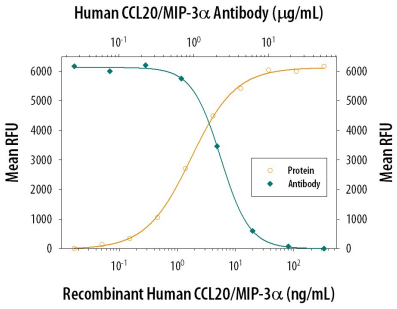
APPLICATIONS

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 CCL20/MIP-3α (Catalog # 360-MP)
Intracellular Staining by Flow Cytometry	2.5 µg/10^6 cells	Human peripheral blood mononuclear cells treated with LPS, fixed with paraformaldehyde, and permeabilized with saponin
Human CCL20/MIP-3α Sandwich Immunoassay		**Reagent**
ELISA Capture	2-8 µg/mL	Human CCL20/MIP-3α Antibody (Catalog # MAB360)
ELISA Detection	0.1-0.4 µg/mL	Human CCL20/MIP-3α Biotinylated Antibody (Catalog # BAF360)
Standard		Recombinant Human CCL20/MIP-3α (Catalog # 360-MP)
Neutralization	Measured by its ability to neutralize CCL20/MIP-3α-induced chemotaxis in the BaF3 mouse pro-B cell line transfected with human CCR6. The Neutralization Dose (ND_{50}) is typically 1-5 µg/mL in the presence of 10 ng/mL Recombinant Human CCL20/MIP-3α.	

DATA

Neutralization



Chemotaxis Induced by CCL20/MIP-3α and Neutralization by Human CCL20/MIP-3α Antibody. Recombinant Human CCL20/MIP-3α (Catalog # 360-MP) chemoattracts the BaF3 mouse pro-B cell line transfected with human CCR6 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 CCL20/MIP-3α (10 ng/mL) is neutralized (green line) by increasing concentrations of Human CCL20/MIP-3α Monoclonal Antibody (Catalog # MAB360). The ND_{50} is typically 1-5 µg/mL.

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.** ● 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.

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BACKGROUND

CCL20, also known as LARC (Liver and Activation-regulated Chemokine) and as Exodus, is one of many novel β chemokines identified through bioinformatics. CCL20 cDNA encodes a 96 amino acid (aa) residue precursor protein with a 26 aa residue signal peptide that is predicted to be cleaved to form the 70 aa residue mature secreted protein. CCL20 is distantly related to other β chemokines (20 - 28% aa sequence identity) and the gene for CCL20 has been mapped to chromosome 2 rather than 17.

CCL20 has been shown to be expressed predominantly in lymph nodes, appendix, PBL, fetal liver, fetal lung and several cell lines. The expression of CCL20 is strongly up-regulated by inflammatory signals and down-regulated by the anti-inflammatory cytokine IL-10. Synthetic or recombinant CCL20 has been shown to be chemotactic for lymphocytes and to inhibit proliferation of myeloid progenitors in colony formation assays. CCL20 has now been shown to be a unique functional ligand for CCR-6 (previously referred to as GPR-CY4, CKR-L3, or STRL22 orphan receptor), a chemokine receptor that is selectively and highly expressed in human dendritic cells derived from $CD34^+$ cord blood precursors.

References:

1. Baba, M. *et al*. (1997) J. Biol. Chem. **272**:14893.
2. Hromas, R. *et al*. (1997) Blood **89**:3315.
3. Greaves, D.R. *et al*. (1997) J. Exp. Med. **186**:837.