

DESCRIPTION	
Species Reactivity	Human
Specificity	Detects human CCL3/MIP-1 α in ELISAs and Western blots. In sandwich immunoassays, less than 0.05% cross-reactivity with recombinant human (rh) MIP-1 β , rhMIP-1 δ , rhMIP-3 α , rhMIP-3 β , and recombinant mouse (rm) MIP-1 α is observed. Neutralizes the biological activity of recombinant human CCL3/MIP-1 α . In the chemotaxis assay this antibody will also partially neutralize the biological activity of rhMIP-1 β at a 20 fold higher IgG concentration. It will not neutralize the biological activity of rmMIP-1 β or rmMIP-1 α .
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human CCL3/MIP-1 α Ala27-Ala92 Accession # P10147
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 CCL3/MIP-1 α isoform LD78a (Catalog # 270-LD)
Immunohistochemistry	5-15 μ g/mL	See Below
Human CCL3/MIP-1α Sandwich Immunoassay		Reagent
ELISA Capture	0.2-0.8 μ g/mL	Human CCL3/MIP-1 α Antibody (Catalog # AF-270-NA)
ELISA Detection	0.1-0.4 μ g/mL	Human CCL3/MIP-1 α Biotinylated Antibody (Catalog # BAF270)
Standard		Recombinant Human CCL3/MIP-1 α Isoform LD78a (Catalog # 270-LD)
Neutralization	Measured by its ability to neutralize CCL3/MIP-1 α -induced chemotaxis in the BaF3 mouse pro-B cell line transfected with human CCR5. The Neutralization Dose (ND ₅₀) is typically 2-8 μ g/mL in the presence of 0.1 μ g/mL Recombinant Human CCL3/MIP-1 α isoform LD78a.	

DATA

Neutralization

Chemotaxis Induced by CCL3/MIP-1 α and Neutralization by Human CCL3/MIP-1 α Antibody. Recombinant Human CCL3/MIP-1 α (Catalog # 270-LD) chemoattracts the BaF3 mouse pro-B cell line transfected with human CCR5 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 CCL3/MIP-1 α (0.1 μ g/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Human CCL3/MIP-1 α Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-270-NA). The ND₅₀ is typically 2-8 μ g/mL.

Immunohistochemistry

CCL3/MIP-1 α in Human Tonsil. CCL3/MIP-1 α was detected in immersion fixed paraffin-embedded sections of human tonsil using Goat Anti-Human CCL3/MIP-1 α Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-270-NA) at 10 μ g/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in lymphocytes. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

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

The macrophage inflammatory proteins -1 α and -1 β were originally co-purified from medium conditioned by an LPS-stimulated murine macrophage cell line. Human MIP-1 α refers to the products of several independently cloned cDNAs, including LD78, pL78, pAT464, and GOS19. These cDNAs all code for the same human protein that is a homologue of the murine MIP-1 α . Mature MIP-1 α and MIP-1 β in both human and mouse share approximately 70% homology at the amino acid level. The MIP-1 proteins are members of the β (C-C) subfamily of chemokines.

Both MIP-1 α and MIP-1 β are monocyte chemoattractants *in vitro*. Additionally, the MIP-1 proteins have been reported to have chemoattractant and adhesive effects on lymphocytes, with MIP-1 α and MIP-1 β preferentially attracting CD8⁺ and CD4⁺ T cells, respectively. MIP-1 α has also been shown to attract B cells as well as eosinophils. MIP-1 proteins have been reported to have multiple effects on hematopoietic precursor cells and MIP-1 α has been identified as a stem cell inhibitory factor that can inhibit the proliferation of hematopoietic stem cells *in vitro* as well as *in vivo*. The functional receptor for MIP-1 α has been identified as CCR1 and CCR5.

References:

1. Menten, P. *et al.* (2002) Cytokine Growth Factor Rev. **13**:455.