

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CCL3/MIP-1 α in Western blots. In direct ELISAs, 100% cross-reactivity with recombinant human (rh) CCL4/MIP-1 β is observed. Does not cross-react with rhCCL1, 2, 5, 7, 8, 11, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, recombinant mouse CCL1, 2, 3, 5, 6, 7, CCL9/10MIP-1 γ , 11, 12, 17, 19, 20, 21, 22, 24, 25, or recombinant rat CCL20.
Source	Monoclonal Mouse IgG _{2B} Clone # 93342
Purification	Protein A or G purified from ascites
Immunogen	<i>E. coli</i> -derived recombinant human CCL3/MIP-1 α Ala27-Ala92 Accession # P10147
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 either lyophilized or 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	1 μ g/mL	Recombinant Human CCL3/MIP-1 α isoform LD78a (Catalog # 270-LD) under non-reducing conditions only
Intracellular Staining by Flow Cytometry	2.5 μ g/10 ⁶ cells	Human peripheral blood mononuclear cells treated with LPS, fixed with paraformaldehyde, and permeabilized with saponin
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

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. <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.