

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse CCL3/MIP-1 α in Western blots. In Western blots, approximately 25% cross-reactivity with recombinant mouse CCL4/MIP-1 β is observed and no cross-reactivity with recombinant human CCL1, 2, 3, 5, 7, 8, 11, 13, 14, 15, 16, 17, 18, 21, 22, 23, 24, 25, 28, recombinant mouse CCL1, 2, 6, 7, 9/10/MIP-1 γ , 11, 12, 19, 21, 22, 25, 28, recombinant rat CCL2 or CCL20 is observed.
Source	Monoclonal Rat IgG _{2A} Clone # 39624
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant mouse CCL3/MIP-1 α Ala24-Ala92 Accession # P10855
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 Mouse CCL3/MIP-1 α Isoform LD78a (Catalog # 450-MA) under non-reducing conditions only

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 , two closely related but distinct proteins, were originally co-purified from medium conditioned by a LPS-stimulated murine macrophage cell line. Mature mouse CCL3/MIP-1 α shares approximately 77% and 70% amino acid identity with human CCL3/MIP-1 α and mouse CCL4/MIP-1 β , respectively. MIP-1 proteins are expressed primarily in T cells, B cells, and monocytes after antigen or mitogen stimulation. The MIP-1 proteins are members of the β (C-C) subfamily of chemokines.

Both CCL3 and CCL4 are monocyte chemoattractants *in vitro*. Additionally, the MIP-1 proteins have been reported to have chemoattractant and adhesive effects on lymphocytes, with CCL3 and CCL4 preferentially attracting CD8⁺ and CD4⁺ T cells, respectively. CCL3 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 CCL3 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*. In the same assays, CCL4 was reported to be much less active. The functional receptor for CCL3 has been identified as CCR1 and CCR5.

References:

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