

**DESCRIPTION**

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse CCL3/MIP-1 $\alpha$ in Western blots. In Western blots, approximately 25% cross-reactivity with recombinant mouse CCL4/MIP-1 $\beta$ 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 $\gamma$ , 11, 12, 19, 21, 22, 25, 28, recombinant rat CCL2 or CCL20 is observed.
<b>Source</b>	Monoclonal Rat IgG <sub>2A</sub> Clone # 39624
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant mouse CCL3/MIP-1 $\alpha$ Ala24-Ala92 Accession # P10855
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 $\mu$ 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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	1 $\mu$ g/mL	Recombinant Mouse CCL3/MIP-1 $\alpha$ Isoform LD78a (Catalog # 450-MA) under non-reducing conditions only

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**BACKGROUND**

The macrophage inflammatory proteins 1 $\alpha$  and 1 $\beta$ , 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 $\alpha$  shares approximately 77% and 70% amino acid identity with human CCL3/MIP-1 $\alpha$  and mouse CCL4/MIP-1 $\beta$ , 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  $\beta$  (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<sup>+</sup> and CD4<sup>+</sup> 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.