

**DESCRIPTION**

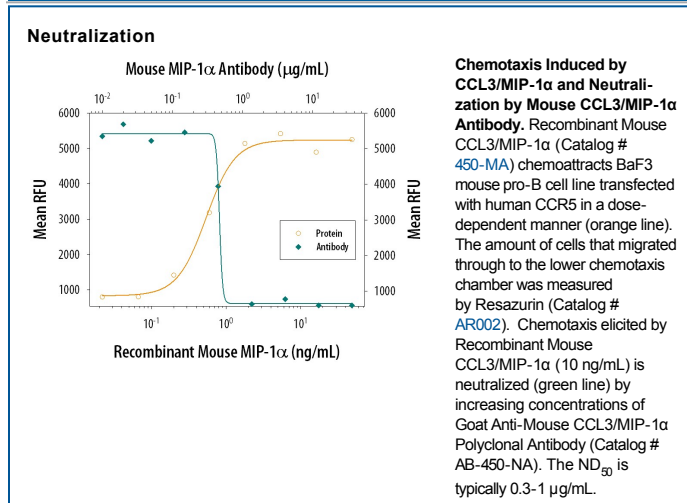
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse CCL3/MIP-1 $\alpha$ in direct ELISAs and Western blots. In Western blots, less than 5% cross-reactivity with recombinant human (rh) MIP-1 $\beta$ , rhMIP-1 $\alpha$ , and recombinant mouse MIP-1 $\beta$ is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Protein A or G purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant mouse CCL3/MIP-1 $\alpha$ (R&D Systems, Catalog # 450-MA) Ala24-Ala92 Accession # Q5QNW0
<b>Endotoxin Level</b>	<0.10 EU per 1 $\mu$ g of the antibody by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

**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)
<b>Neutralization</b>		Measured by its ability to neutralize CCL3/MIP-1 $\alpha$ -induced chemotaxis in BaF3 mouse pro-B cell line transfected with human CCR5. The Neutralization Dose (ND <sub>50</sub> ) is typically 0.3-1 $\mu$ g/mL in the presence of 10 ng/mL Recombinant Mouse CCL3/MIP-1 $\alpha$ Isoform LD78a.

**DATA**



**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 1 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.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <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 MIP-1 $\alpha$  shares approximately 77% and 70% amino acid identity with human MIP-1 $\alpha$  and mouse 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 MIP-1 $\alpha$  and MIP-1 $\beta$  are monocyte chemoattractants *in vitro*. Additionally, the MIP-1 proteins have been reported to have chemoattractant and adhesive effects on lymphocytes, with MIP-1 $\alpha$  and MIP-1 $\beta$  preferentially attracting CD8<sup>+</sup> and CD4<sup>+</sup> T cells, respectively. MIP-1 $\alpha$  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 $\alpha$  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, MIP-1 $\beta$  was reported to be much less active. The functional receptor for MIP-1 $\alpha$  has been identified as CCR1 and CCR5.

## References:

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