

## DESCRIPTION

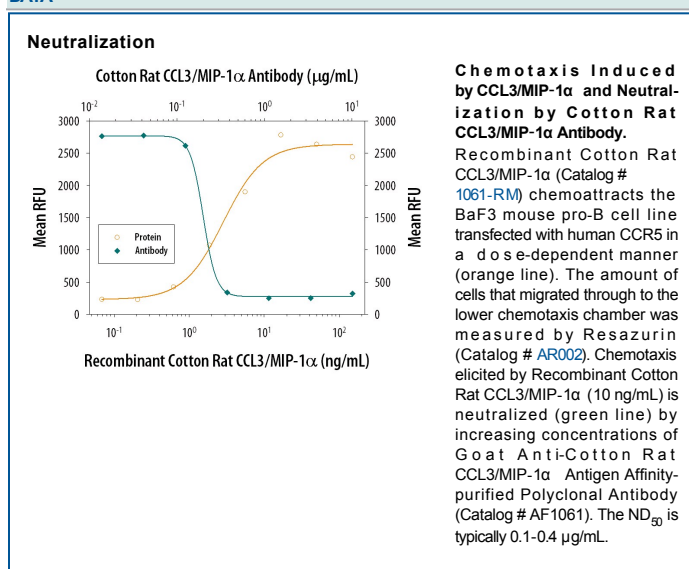
|                           |  |
|---------------------------|--|
| <b>Species Reactivity</b> | Cotton Rat   |
| <b>Specificity</b>        | Detects cotton rat CCL3/MIP-1 $\alpha$ in direct ELISAs and Western blots. In direct ELISAs, approximately 50% cross-reactivity with recombinant mouse MIP-1 $\alpha$ is observed, 15% cross-reactivity with recombinant human (rh) MIP-1 $\alpha$ is observed, less than 10% cross-reactivity with rhMIP-1 $\beta$ , rh6Ckine, and rhHCC-4 is observed. |
| <b>Source</b>             | Polyclonal Goat IgG  |
| <b>Purification</b>       | Antigen Affinity-purified  |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant cotton rat CCL3/MIP-1 $\alpha$<br>Ala24-Ala92<br>Accession # AAL26704  |
| <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.

|                       | Recommended Concentration | Sample  |
|-----------------------|---------------------------|---|
| <b>Western Blot</b>   | 0.1 $\mu$ g/mL            | Recombinant Cotton Rat CCL3/MIP-1 $\alpha$ (Catalog # 1061-RM)  |
| <b>Neutralization</b> |                           | Measured by its ability to neutralize CCL3/MIP-1 $\alpha$ -induced chemotaxis in the BaF3 mouse pro-B cell line transfected with human CCR5. The Neutralization Dose (ND <sub>50</sub> ) is typically 0.1-0.4 $\mu$ g/mL in the presence of 10 ng/mL Recombinant Cotton Rat CCL3/MIP-1 $\alpha$ . |

## DATA



## PREPARATION AND STORAGE

|                                |   |
|--------------------------------|---|
| <b>Reconstitution</b>          | Reconstitute at 0.2 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

MIP-1 $\alpha$  is a  $\beta$  family (CC) chemokine and has been designated CCL3. MIP-1 $\alpha$  and MIP-1 $\beta$ , two closely related but distinct proteins, were originally purified from medium conditioned by a LPS-stimulated murine macrophage cell line. Cotton rat MIP-1 $\alpha$  cDNA encodes a 92 amino acid (aa) residue precursor protein with a 23 aa putative signal peptide. Mature cotton rat MIP-1 $\alpha$  shares approximately 70% amino acid identity with human MIP-1 $\alpha$ . MIP-1 $\alpha$  is expressed in a wide variety of cells, including lymphocytes, fibroblasts, and epithelial cells, as well as monocytes/macrophages.

MIP-1 $\alpha$  has been shown to play an important role in the recruitment of mononuclear cells. Additionally, MIP-1 $\alpha$  has been reported to have chemoattractant and adhesive effects on lymphocytes, preferentially promoting the chemotaxis of Th1 cells. MIP-1 $\alpha$  has also been shown to attract B cells, eosinophils, and dendritic cells. In addition, MIP-1 $\alpha$  augments cytolytic activity of NK cells (1). 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*. It has been demonstrated that MIP-1 $\alpha$  can bind the chemokine receptors CCR1 and CCR5 (2).

## References:

1. Robertson, M. (2002) *J. Leukoc. Biol.* **71**:173.
2. Zlotnik, A. *et al.* (2000) *Immunity* **12**:121.