

## DESCRIPTION

|                                                                                                                                                                                                         |                                                                                                                                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Mouse                                                                                                                                                                                                                                             |
| <b>Specificity</b>                                                                                                                                                                                      | Detects mouse CCL3/MIP-1 $\alpha$ in ELISAs and Western blots. In sandwich ELISAs, less than 0.03% cross-reactivity with recombinant human (rh) CCL3, recombinant mouse (rm) CCL9/10, and rmCCL4 and less than 0.4% cross-reactivity with rhCCL7. |
| <b>Source</b>                                                                                                                                                                                           | Polyclonal Goat IgG                                                                                                                                                                                                                               |
| <b>Purification</b>                                                                                                                                                                                     | Antigen Affinity-purified                                                                                                                                                                                                                         |
| <b>Immunogen</b>                                                                                                                                                                                        | <i>E. coli</i> -derived recombinant mouse CCL3/MIP-1 $\alpha$<br>Ala24-Ala92<br>Accession # Q5QNW0                                                                                                                                                |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 750<br>Excitation Wavelength: 749 nm<br>Emission Wavelength: 775 nm                                                                                                                                                                   |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide                                                                                                                                                                                      |
| *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |                                                                                                                                                                                                                                                   |

## 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>ELISA Capture (Matched Antibody Pair)</b>   | Optimal dilution of this antibody should be experimentally determined. |
| <b>ELISA Detection (Matched Antibody Pair)</b> | Optimal dilution of this antibody should be experimentally determined. |
| <b>Neutralization</b>                          | Optimal dilution of this antibody should be experimentally determined. |
| <b>Western Blot</b>                            | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunocytochemistry</b>                     | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</b>                    | Optimal dilution of this antibody should be experimentally determined. |

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## 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.

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