

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Mouse                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects mouse CCL9/10/MIP-1 $\gamma$ in ELISAs and Western blots. In sandwich ELISAs, less than 0.02% cross-reactivity with recombinant human CCL3, 4, 15, 19, 20, recombinant mouse CCL3, 4, 19, or recombinant rat CCL20 is observed.                                     |
| <b>Source</b>             | Monoclonal Rat IgG <sub>1</sub> Clone # 62105                                                                                                                                                                                                                               |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant mouse CCL9/10/MIP-1 $\gamma$<br>Gln22-Gln122<br>Accession # P51670                                                                                                                                                                      |
| <b>Conjugate</b>          | Alexa Fluor 594<br>Excitation Wavelength: 590 nm<br>Emission Wavelength: 617 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*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. |

#### 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

Mouse CCL9/10 (also named MIP-1 $\gamma$  and MRP-2) is an 11 kDa, secreted, monomeric polypeptide that belongs to the  $\beta$  (or CC) intercrine family of chemokines (1-3). Based on its activity and amino acid (aa) sequence, it is further classified as a member of the NC6 or six cysteine-containing CC subfamily of chemokines (2, 4, 5). This subfamily contains four N-terminally extended chemokines, two human (CCL15 and CCL23) and two mouse (CCL9 and CCL10). Within this subfamily, there are no human-to-rodent interspecies orthologs. Mouse CCL9/10 is synthesized as a 122 aa precursor that contains a 21 aa signal sequence and a 101 aa mature region with six cysteines. As noted, the mature region has an expanded N-terminus relative to other CC family members, and it forms a third intrachain disulfide bond with its two extra cysteines (3-7). Mouse CCL9/10 is 75% aa identical to rat CCL9/10 (8). Chemokines are known to undergo proteolytic processing to generate multiple isoforms. NC6 chemokines are usually only marginally active at full-length, but are converted to highly active forms upon N-terminal truncation. Mature CCL9, in the presence of inflammatory fluids, is naturally truncated by 28, 29 or 30 aa at the N-terminus, generating a highly active, 8 kDa, 71-73 aa CCR1 ligand. In contrast, other CCR1 ligands, CCL3/MIP-1 $\alpha$  and CCL5/RANTES, lose their potency when proteolytically processed. CCL9/10 is constitutively secreted, and circulates as a full-length molecule. Any onset of inflammation with subsequent enzyme release may act on local NC6 chemokines, generating early, potent leukocyte chemoattractants (5, 7).

#### PRODUCT SPECIFIC NOTICES

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