

## DESCRIPTION

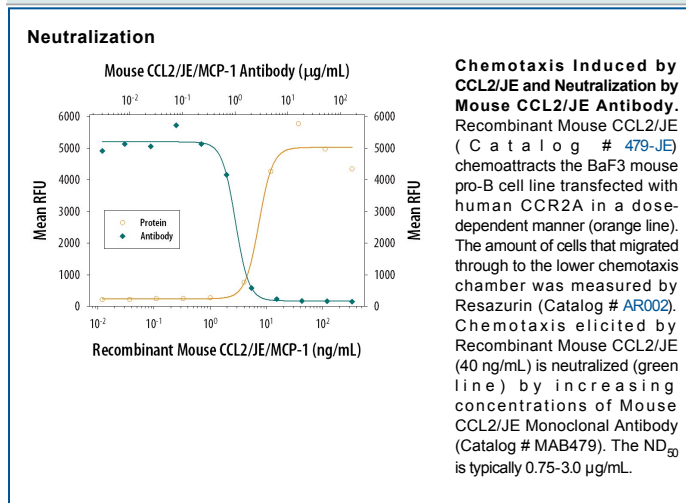
|                           |   |
|---------------------------|---|
| <b>Species Reactivity</b> | Mouse   |
| <b>Specificity</b>        | Detects mouse CCL2/JE/MCP-1 in ELISAs. Does not cross-react with recombinant human (rh) CCL1, 2, 3, 4, 5, 7, 8, 11, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, rmCCL1, 3, 4, 5, 6, 7, 9/10/MIP-1 $\gamma$ , 11, 12, 17, 19, 20, 21, 22, 24, 25, 27, 28, or rCCL20. |
| <b>Source</b>             | Monoclonal Rat IgG <sub>2B</sub> Clone # 123616   |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant  |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant mouse CCL2/JE/MCP-1<br>Gln24-Arg96<br>Accession # P10148  |
| <b>Endotoxin Level</b>    | <0.1 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.

**Neutralization** Measured by its ability to neutralize CCL2/JE/MCP-1-induced chemotaxis in the BaF3 mouse pro-B cell line transfected with human CCR2A. The Neutralization Dose (ND<sub>50</sub>) is typically 0.75-3.0  $\mu$ g/mL in the presence of 40 ng/mL Recombinant Mouse CCL2/JE/MCP-1.

## DATA



## 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.  |
| <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 from date of receipt, 2 to 8 °C, reconstituted.</li> <li>● 6 months from date of receipt, -20 to -70 °C, reconstituted.</li> </ul> |

## BACKGROUND

Mouse CCL2 is a member of the  $\beta$  (C-C) subfamily of chemokines. The mouse CCL2 gene was initially identified as a platelet-derived growth factor-inducible gene in mouse fibroblasts. Mouse CCL2 cDNA encodes a 148 amino acid (aa) residue with a putative 23 aa signal peptide that is cleaved to generate the mature protein. Mouse CCL2 shares 82% amino acid sequence identity with rat CCL2. Mouse CCL2 also shares 55% amino acid sequence identity with human MCP-1. Compared to human MCP-1, mouse CCL2 has a 49 aa residue extension at the carboxy-terminus. When a DNA sequence encoding the 125 aa residue of the mature CCL2 protein was expressed in *E. coli* at R&D Systems, the purified protein had the predicted N-terminus but a mass of 8525 Da. The truncation of most of the C-terminal extension could be due either to purification artifact or to post-translational modification. The truncated recombinant CCL2 has a potency similar to that of human MCP-1 in the monocyte chemotaxis assay. Mouse CCL2 has full activity on human cells while human MCP-1 has limited activity on mouse cells.

## References:

1. Rollins, B.J. *et al.* (1988) Proc. Natl. Acad. Sci. USA **85**:3738.
2. Gu, L. *et al.* (1999) Chem. Immunol. **72**:7.
3. Luini, W. *et al.* (1994) Cytokine **6**:28.