

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse CCL2 in direct ELISAs.
Source	Monoclonal Rat IgG _{2B} Clone # 123616R
Purification	Protein A or G purified from cell culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant mouse CCL2 Gln24-Arg96 Accession # P10148
Conjugate	Alexa Fluor 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *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.

	Recommended Concentration	Sample
Flow Cytometry	0.25-1 µg/10 ⁶ cells	Mouse splenocytes treated with LPS and monensin

PREPARATION AND STORAGE

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

BACKGROUND

Mouse CCL2 is a member of the β (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.

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