Mouse CCL2/JE/MCP-1 APC-conjugated Antibody

Monoclonal Rat IgG_{2B} Clone # 123616

Catalog Number: IC479A

100 TESTS

DESCRIPTION

Species Reactivity	Mouse
Specificity	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-1γ, 11, 12, 17, 19, 20, 21, 22, 24, 25, 27, 28, or rrCCL20.
Source	Monoclonal Rat IgG_{2B} Clone # 123616
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant mouse CCL2/JE/MCP-1 Gln24-Arg96 Accession # P10148
Conjugate	Allophycocyanin Excitation Wavelength: 620-650 nm Emission Wavelength: 660-670 nm
Formulation	Supplied 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.

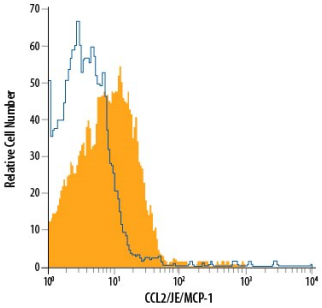
APPLICATIONS

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
Intracellular Staining by Flow Cytometry	10 µL/10^6 cells	See Below

DATA

Intracellular Staining by Flow Cytometry



Detection of CCL2/JE/MCP-1 in Mouse Splenocytes by Flow Cytometry. Mouse splenocytes treated with LPS for 48 hours were stained with Rat Anti-Mouse CCL2/JE/MCP-1 APC-conjugated Monoclonal Antibody (Catalog # IC479A, filled histogram) or isotype control antibody (Catalog # IC013A, open histogram). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). View our protocol for Staining Intracellular Molecules.

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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