Mouse CCL2/JE/MCP-1 Antibody

Polyclonal Goat IgG

Catalog Number: AB-479-NA

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse CCL2/JE/MCP-1 in direct ELISAs and Western blots. In direct ELISAs, less than 10% cross-reactivity with recombinant human MCP-1, recombinant mouse (rm MCP-5, and recombinant rat JE is observed. In Western blots, no cross-reactivity with rmEotaxin, rmMCP-5, or rmCCL7 is observed.
Source	Polyclonal Goat IgG
Purification	Protein A or G purified
Immunogen	*E. coli*-derived recombinant mouse CCL2/JE/MCP-1 Gln24-Arg96 Accession # Q5SVU3
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

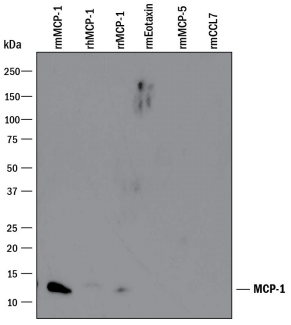
APPLICATIONS

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.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
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_{50}) is typically 10-30 µg/mL in the presence of 40 ng/mL Recombinant Mouse CCL2/JE/MCP-1.	

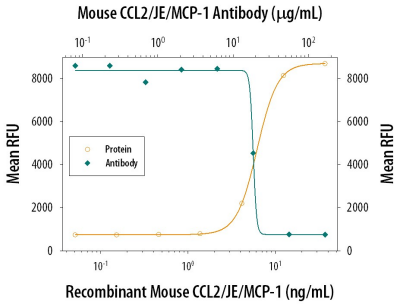
DATA

Western Blot



Detection of Recombinant Mouse CCL2/JE/MCP-1 by Western Blot. Western blot shows 25 ng of Recombinant Mouse CCL2/JE/MCP-1 (Catalog # 479-JE), Recombinant Human CCL2/JE/MCP-1 (Catalog # 279-MC), Recombinant Rat CCL2/JE/MCP-1 (Catalog # 3144-JE), Recombinant Mouse CCL11/Eotaxin (Catalog # 420-ME), Recombinant Mouse CCL12/MCP-5 (Catalog # 428-P5), and Recombinant Mouse CCL7/MCP-3/MARC (Catalog # 456-MC). PVDF Membrane was probed with 1 µg/mL of Goat Anti-Mouse CCL2/JE/MCP-1 Polyclonal Antibody (Catalog # AB-479-NA) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). A specific band was detected for CCL2/JE/MCP-1 at approximately 12 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 3.

Neutralization



Chemotaxis Induced by CCL2/JE/MCP-1 and Neutralization by Mouse CCL2/JE Antibody. Recombinant Mouse CCL2/JE (Catalog # 479-JE) chemoattracts the BaF3 mouse pro-B cell line transfected with human CCR2A in a dose-dependent manner (orange line). The amount of cells that migrated through to the lower chemotaxis chamber was measured by Resazurin (Catalog # AR002). Chemotaxis elicited by Recombinant Mouse CCL2/JE (40 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Mouse CCL2/JE/MCP-1 Polyclonal Antibody (Catalog # AB-479-NA). The ND_{50} is typically 10-30 µg/mL.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 1 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Mouse CCL2 is a member of the β (C-C) subfamily of chemokines. The murine *CCL2* gene was initially identified as a platelet-derived growth factor-inducible gene in murine 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. 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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