

DESCRIPTION

Species Reactivity	Canine
Specificity	Detects canine CCL2/JE/MCP-1 in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG ₁ Clone # 280702
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant canine CCL2/JE/MCP-1 Gln24-Pro101 Accession # P52203
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*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.

ELISA Capture (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
ELISA Detection (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
Neutralization	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.

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

Canine MCP-1 (monocyte chemotactic protein-1) is an 8 kDa member of the CC chemokine family of chemotactic factors (1, 2). It is synthesized as a 101 amino acid (aa) precursor that contains a 23 aa signal sequence and a 78 aa mature segment (3). It contains no potential N-linked glycosylation sites and is not known for any posttranslational modifications. Based on human studies, MCP-1 will primarily circulate as a monomer. Noncovalent dimers are likely to be found, however. MCP-1 activity has been localized to the N-terminus (1). Cell types known to secrete MCP-1 are considerable in number, and include keratinocytes, fibroblasts, endothelium, osteoblasts, macrophages, mast cells, smooth muscle cells, and astrocytes (1, 2). In the mature MCP-1 segment, there is 82% and 83% aa identity, canine to human and porcine MCP-1, respectively. When mature canine MCP-1 is compared to (125 aa) extended rodent MCP-1, there is 55% and 56% aa identity, canine to mouse and rat MCP-1, respectively. MCP-1 has three possible receptors. The first two are CCR2 (1) and CCR11 (4). The third receptor has only been identified in mice and is called L-CCR (5). Its function is unknown. MCP-1 is best known as a chemotactic agent for mononuclear cells. It also, however, induces enzyme and cytokine release in monocytes, NK cells, and lymphocytes and histamine release by basophils (1). Additionally, it is believed to reduce IL-12 production by dendritic cells and promote a Th2 phenotype in CD4⁺ T cells (6).

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