

Datasheet: MCA5981GA

Description:	MOUSE ANTI HUMAN MCP-1
Specificity:	MCP-1
Other names:	CCL2
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	5D3-F7
Isotype:	IgG1
Quantity:	0.1 mg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry (1)	▪			Neat - 1/5
Immunohistology - Frozen	▪			
Immunohistology - Paraffin (2)	▪			
ELISA	▪			1.0 - 4.0ug/ml
Immunoprecipitation	▪			
Western Blotting	▪			1/100 - 1/1000

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

(1) Results maybe enhanced using membrane permeabilisation. Membrane permeabilization is required for this application. The use of Leucoperm (Product Code [BUF09](#)) is recommended for this purpose.

(2) This product requires antigen retrieval using heat treatment prior to staining of paraffin sections. Sodium citrate buffer pH 6.0 is recommended for this purpose.

Target Species	Human
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Species Cross Reactivity	<p>Reacts with: Cynomolgus monkey, Rhesus Monkey</p> <p>N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for</p>
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further information.

Product Form	Purified IgG - liquid
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Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
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Buffer Solution	Phosphate buffered saline
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Preservative Stabilisers	<0.1% Sodium Azide (NaN ₃)
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Approx. Protein Concentrations	IgG concentration 0.5 mg/ml
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Immunogen	Recombinant human MCP-1.
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External Database Links	UniProt: P13500 Related reagents Entrez Gene: 6347 CCL2 Related reagents
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Synonyms	MCP1, SCYA2
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Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells of the mouse SP2/0 myeloma cell line.
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Specificity	<p>Mouse anti Human MCP-1, clone 5D3-F7 recognizes Monocyte chemoattractant protein-1, otherwise known as CCL2 (C-C motif chemokine 2), a member of the intercrine beta (chemokine CC) family, which acts as a chemoattractant for monocytes, basophils, natural killer cells (NKs) and memory T cells, in both normal and neoplastic tissues (Peri et al. 1994).</p> <p>MCP-1 can be synthesized on demand in response to inflammatory stimuli, and is expressed in a wide variety of tissues and by many cell types, including macrophages, basophils, NK cells, T cells, immature DCs, endothelial cells, astrocytes and microglia. MCP-1 acts as a major ligand for CCR2 (C-C chemokine receptor type 2), and is implicated in several inflammatory diseases, including Rheumatoid Arthritis (RA), Multiple Sclerosis (MS), asthma and atherosclerosis (Bendall, 2005.)</p> <p>MCP-1 was originally cloned from human gliomas and myelomonocytic cells, and overexpression of MCP-1 has long been associated with cancers, including breast, ovarian, prostate and esophageal cancer and also more recently with an increase in metastatic potential, for example in bone and lung cancer (Zhang et al. 2010). Clone 5D3-F7 has been shown to recognize both recombinant and natural human MCP-1, and to inhibit the chemotactic activity of MCP-1 for monocytes (Peri et al. 1994). Bio-Rad recommend the removal of sodium azide for this purpose.</p>
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Mouse anti Human MCP-1, clone 5D3-F7 does not cross react with closely related MCP-2, MCP-3, MIP-1alpha, and RANTES, or with the CXC chemokines NAP-2, gro-alpha and interleukin-8.

Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10 ⁶ cells in 100ul.
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Histology Positive Control Tissue	Human tonsil, lymph node or spleen
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References	1. Peri, G. <i>et al.</i> (1994) A new monoclonal antibody (5D3-F7) which recognizes human monocyte-chemotactic protein-1 but not related chemokines. Development of a sandwich ELISA and in situ detection of producing cells. J Immunol Methods. 174 (1-2): 249-57.
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Further Reading	1. Bendall, L. (2005) Chemokines and their receptors in disease. Histol Histopathol. 20 (3): 907-26. 2. Zhang, J. <i>et al.</i> (2010) Targeting chemokine (C-C motif) ligand 2 (CCL2) as an example of translation of cancer molecular biology to the clinic. Prog Mol Biol Transl Sci. 95: 31–53
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Storage	This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C. Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.
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Guarantee	12 months from date of despatch
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Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA5981GA 10040
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Regulatory	For research purposes only
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Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (STAR70...)	FITC
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight@488 , DyLight@550 , DyLight@650 , DyLight@680 , DyLight@800 , FITC , HRP
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Goat Anti Mouse IgG (STAR77...)	HRP

Rabbit Anti Mouse IgG (STAR9...) [FITC](#)

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

North & South Tel: +1 800 265 7376

America Fax: +1 919 878 3751

Email: antibody_sales_us@bio-rad.com

Worldwide

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: antibody_sales_uk@bio-rad.com

Europe

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: antibody_sales_de@bio-rad.com

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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