Datasheet: MCA2733

Description:	MOUSE ANTI HUMAN MMP-1
Specificity:	MMP-1
Other names:	INTERSTITIAL COLLAGENASE
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	3B6
Isotype:	IgG1
Quantity:	0.2 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			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin (1)	▪			
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting	▪			

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)**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
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
Buffer Solution	Phosphate buffered saline

Preservative Stabilisers	0.09% Sodium Azide (NaN_3)
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0mg/ml
Immunogen	Ovalbumin conjugated synthetic peptide corresponding to a region within the C-terminus of human MMP-1.
External Database Links	**UniProt:** P03956 Related reagents **Entrez Gene:** 4312 MMP1 Related reagents
Synonyms	CLG
RRID	AB_2144297
Fusion Partners	Spleen cells from immunised Balb/c mice were fused with cells of the Ag8563 myeloma cell line.
Specificity	**Mouse anti Human MMP-1 antibody, clone 3B6** recognizes human matrix metalloproteinase 1 (MMP-1), also known as interstitial or fibroblast collagenase, a 469 amino acid, in the pro-peptide form, zinc-dependent endopeptidase responsible for degrading the extracellular matrix. MMPs are also involved in cell proliferation, migration, differentiation and apoptosis (Chen *et al.* 2013). Most MMP's are synthesised as inactive zymogens and a propeptide region must be cleaved off before the enzyme becomes active (Nagase *et al.* 1992). MMP expression is increased dramatically in a variety of cancer types, where it indicates invasive disease and a poor prognosis (Murray *et al.* 1996). MMP-1 is one of the collagenases, capable of degrading collagens I, II and III, all main components of the interstitial stroma (Robichaud *et al.* 2011). MMP-1 is overexpressed in invasive melanoma, colorectal and esophageal cancers (Langenskiöld *et al.* 2013). MMP-1 has also been implicated in arthritis and may influence atherosclerotic lesion formation (Nikkari *et al.* 1995) . Additionally, MMP-1 has been implicated in the repair processes of the heart after myocardial infarction (Yarbrough *et al.* 2003). Mouse anti Human MMP-1 has been used successfully for the detection of MMP-1 in gastric cancer by both Western blotting and immunohistochemistry (Murray *et al.* 1998).
Histology Positive Control Tissue	Colon carcinoma
Western Blotting	MCA2733 detects a band of approximately 37kDa

References	1. Murray, G.I. *et al.* (1998) Matrix metalloproteinases and their inhibitors in gastric cancer. Gut. 43: 791-7. 2. Lyall, M.S. *et al.* (2006) Profiling markers of prognosis in colorectal cancer. Clin Cancer Res. 12: 1184-91.
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.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA2733 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (STAR70...)	FITC
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos., DyLight®488, DyLight®550, DyLight®650, DyLight®680, DyLight®800, FITC, HRP

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

North & South America Tel: +1 800 265 7376 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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