Datasheet: MCA2736GA

BATCH NUMBER 166885

Description:	MOUSE ANTI HUMAN MMP-9 ACTIVATED
Specificity:	MMP-9 ACTIVATED
Other names:	GELATINASE B
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	4A3
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			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin	▪			1/25 - 1/100
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.

Target Species	Human
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	<0.1% Sodium Azide (NaN_3)

Approx. Protein Concentrations	IgG concentration 0.5mg/ml
Immunogen	Ovalbumin conjugated synthetic peptide corresponding to a region within the N-terminus of human MMP-9.
External Database Links	**UniProt:** P14780 Related reagents **Entrez Gene:** 4318 MMP9 Related reagents
Synonyms	CLG4B
RRID	AB_1605330
Fusion Partners	Spleen cells from immunised Balb/c mice were fused with cells of the Ag8563 myeloma cell line.
Specificity	**Mouse anti Human MMP-9 Activated antibody, clone 4A3** recognizes the active form of human matrix metalloproteinase 9 (MMP-9). The MMP's are zinc-dependent endopeptidases responsible for degrading the extracellular matrix. They are also involved in cell proliferation, migration, differentiation and apoptosis. Most MMP's are synthesised as inactive zymogens and a propeptide region must be cleaved off before the enzyme becomes active. Their expression is increased dramatically in a variety of cancer types, where it indicates invasive disease and a poor prognosis. MMP-9 is a gelatinase, cleaving type IV collagen and gelatin. The gelatinases have an additional gelatin-binding domain inserted in the catalytic domain. MMP-9, alongside other MMPs, plays a role in normal tissue remodeling such as embryonic development, ovulation, mammary gland involution and wound healing. It is important in the early stages of tumor invasion as it degrades the type IV collagen in the basement membrane. Mouse anti Human MMP-9 Activated antibody, clone 4A3 recognizes only the active form of MMP-9. It does not react with the MMP-9 proenzyme or the active or proenzyme forms of MMP-2.
Immunohistology	This product does not require protein digestion pre-treatment of paraffin sections. This product does not require antigen retrieval using heat treatment prior to staining of paraffin sections.
Histology Positive Control Tissue	Esophageal adenocarcinoma
Western Blotting	MCA2736GA detects a band of approximately 63kDa.
References	1. Duncan, M.E. *et al.* (1998) Human matrix metalloproteinase-9: activation by limited trypsin treatment and generation of monoclonal antibodies specific for the activated form. Eur J Biochem. 258 (1): 37-43.

2. Šelemetjev S *et al.* (2016) Coexpressed High Levels of VEGF-C and Active MMP-9 Are Associated With Lymphatic Spreading and Local Invasiveness of Papillary Thyroid Carcinoma. Am J Clin Pathol. Nov 2. pii: aqw184. [Epub ahead of print]
3. Dede, E. *et al.* (2021) The effects of exercise training on cardiac matrix metalloproteinases activity and cardiac function in mice with diabetic cardiomyopathy Biochem Biophys Res Comm. 09 Nov [Epub ahead of print].

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/MCA2736GA 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
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 (STAR77...)	HRP
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP
Rabbit Anti Mouse IgG (STAR13...)	HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC

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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