

Datasheet: MCA2736GA

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
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% 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

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: agw184. \[Epub ahead of print\]](#)

Storage

Store at +4°C or at -20°C if preferred.
Storage in frost-free freezers is not recommended.
This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life

18 months from date of despatch.

**Health And Safety
Information**

Material Safety Datasheet Documentation #10040 available at:
<https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Rabbit Anti Mouse IgG (STAR8...)	DyLight®800
Goat Anti Mouse IgG (STAR76...)	RPE
Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight®488 , DyLight®549 , DyLight®649 , DyLight®680 , DyLight®800 , FITC , HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Human Anti Mouse IgG1 (HCA036...)	HRP
Goat Anti Mouse IgG (STAR70...)	FITC

Recommended Useful Reagents

[HISTAR DETECTION SYSTEM \(STAR3000B\)](#)

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
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