

Datasheet: MCA6255B

Description:	MOUSE ANTI HUMAN MMP-1:Biotin
Specificity:	MMP-1
Other names:	Interstitial collagenase
Format:	Biotin
Product Type:	Monoclonal Antibody
Clone:	F09-3C7
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
ELISA	▪			1.0 ug/ml

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 conjugated to Biotin - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃) 1% Bovine Serum Albumin
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml
Immunogen	<i>E. coli</i> derived recombinant human partial length of MMP-1 (Phe100-Thr274)

**External Database
Links**

UniProt:

[P03956](#) [Related reagents](#)

Entrez Gene:

[4312](#) MMP1 [Related reagents](#)

Synonyms

CLG

Fusion Partners

Cell fusion between immunized BALB/c mouse spleen cells and mouse myeloma SP2/0

Specificity

Mouse anti Human MMP-1 antibody, clone F09-3C7, recognizes matrix metalloproteinase-1 (MMP-1), also known as interstitial collagenase and fibroblast collagenase. MMP-1 is a 45 kDa protein in its active form and is a member of the metzincins superfamily of proteases. It is produced by various cells and tissues including the endothelium, fibroblasts, smooth muscle cells, vascular adventitia and platelets ([Cui et al. 2017](#)).

MMP-1 is largely expressed by connective and vascular tissues and cells due to its roles in extracellular matrix remodeling. It is synthesized as a pre-proenzyme before being processed to remove the signal peptide forming the pro-MMP-1. This is then further cleaved by proteolytic enzymes to create the active form. Like other MMP's, MMP-1 plays a major role in tissue remodeling through the promotion of extracellular matrix (ECM) protein turnover. Specifically MMP-1 degrades the collagen proteins type I, II, III, VII, VIII, X and gelatin. It is also able to target other ECM substrates including aggrecan, nidogen and perlecan ([Cui et al. 2017](#)).

MMP1 expression levels are low in most cells under physiological conditions, but are upregulated during inflammatory conditions and autoimmune diseases ([Mittal et al. 2016](#)). For example a single nucleotide polymorphism of MMP-1 at the promoter region has been associated with an increased risk of sudden deafness linked to circulatory disturbance and inflammation ([Nam et al. 2011](#)).

The biotinylated Mouse anti Human MMP-1 antibody, clone F09-3C7 (MCA6255B) can be used as a detection antibody in a sandwich ELISA with the purified Mouse anti Human MMP-1 antibody, clone F08-2F1 ([MCA6254GA](#)) as the capture antibody.

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 #10041 available at:
10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

Related Products

Recommended Useful Reagents

[MOUSE ANTI HUMAN MMP-1 \(MCA6254GA\)](#)

ELISA Matched Pair - Capture Antibody

[MOUSE ANTI HUMAN MMP-1 \(MCA6254GA\)](#)

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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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