

Product datasheet

Anti-MMP9 antibody [EP1255Y] ab137867

Recombinant RabMAb

★★★★☆ 6 Abreviews 82 References 6 Images

Overview

Product name	Anti-MMP9 antibody [EP1255Y]
Description	Rabbit monoclonal [EP1255Y] to MMP9
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P Unsuitable for: Flow Cyt, ICC/IF or IP
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide within Human MMP9 (C terminal). The exact sequence is proprietary.
Positive control	WB: U937, A549 (Human lung carcinoma epithelial cell) serum starved overnight, then treated with 80nM TPA for 24 hours whole cell lysate and MDA-MB-231 (Human breast adenocarcinoma epithelial cell) serum starved overnight, then treated with 200nM TPA for 24 hours whole cell lysate IHC-P: Human tonsil and lymphoma tissues.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p>

Properties

Form Liquid

Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.01% Sodium azide Constituents: 40% Glycerol, 0.05% BSA, 59% PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP1255Y
Isotype	IgG

Applications

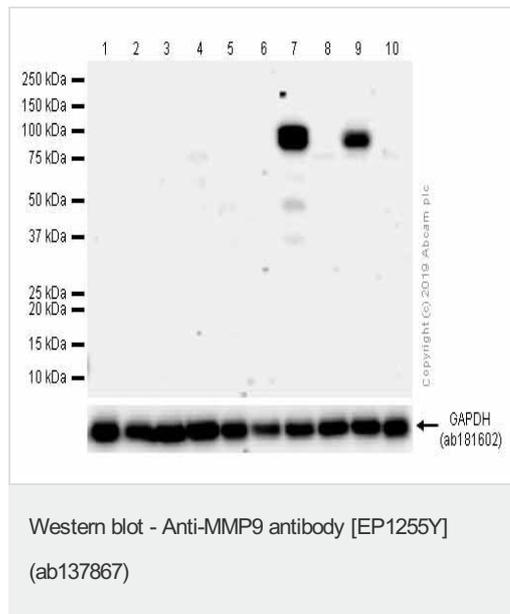
The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab137867 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ (5)	1/1000. Predicted molecular weight: 78 kDa.
IHC-P		1/1000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. See IHC antigen retrieval protocols . For unpurified use at 1/800.

Application notes Is unsuitable for Flow Cyt, ICC/IF or IP.

Target

Function	May play an essential role in local proteolysis of the extracellular matrix and in leukocyte migration. Could play a role in bone osteoclastic resorption. Cleaves KiSS1 at a Gly-Leu bond. Cleaves type IV and type V collagen into large C-terminal three quarter fragments and shorter N-terminal one quarter fragments. Degrades fibronectin but not laminin or Pz-peptide.
Tissue specificity	Produced by normal alveolar macrophages and granulocytes.
Involvement in disease	Intervertebral disc disease Metaphyseal anadysplasia 2
Sequence similarities	Belongs to the peptidase M10A family. Contains 3 fibronectin type-II domains. Contains 4 hemopexin repeats.
Domain	The conserved cysteine present in the cysteine-switch motif binds the catalytic zinc ion, thus inhibiting the enzyme. The dissociation of the cysteine from the zinc ion upon the activation-peptide release activates the enzyme.
Post-translational modifications	Processing of the precursor yields different active forms of 64, 67 and 82 kDa. Sequentially processing by MMP3 yields the 82 kDa matrix metalloproteinase-9. N- and O-glycosylated.
Cellular localization	Secreted, extracellular space, extracellular matrix.



All lanes : Anti-MMP9 antibody [EP1255Y] (ab137867) at 1/1000 dilution

Lane 1 : LoVo (Human colorectal adenocarcinoma epithelial cell) whole cell lysate

Lane 2 : Huh7 (Human hepatocellular carcinoma epithelial cell) whole cell lysate

Lane 3 : MCF7 (Human breast adenocarcinoma epithelial cell) whole cell lysate

Lane 4 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate

Lane 5 : Caco-2 (Human colorectal adenocarcinoma epithelial cell) whole cell lysate

Lane 6 : A549 (Human lung carcinoma epithelial cell) serum starved overnight whole cell lysate

Lane 7 : A549 (Human lung carcinoma epithelial cell) serum starved overnight, then treated with 80nM TPA for 24 hours whole cell lysate

Lane 8 : MDA-MB-231 (Human breast adenocarcinoma epithelial cell) serum starved overnight whole cell lysate

Lane 9 : MDA-MB-231 (Human breast adenocarcinoma epithelial cell) serum starved overnight, then treated with 200nM TPA for 24 hours whole cell lysate

Lane 10 : HepG2 (Human hepatocellular carcinoma epithelial cell) whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 78 kDa

Observed band size: 84 kDa

Exposure time: 180 seconds

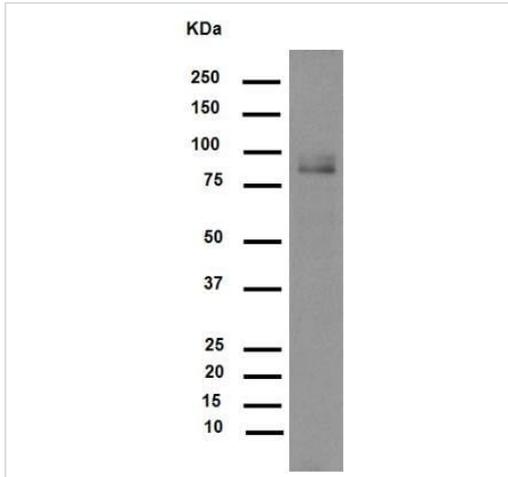
Blocking buffer and concentration 5% NFDm/TBST

Diluting buffer and concentration 5% NFDm/TBST

The expression of MMP-9 can be stimulated by various agents,

such as inflammatory cytokine, growth factor, and 12-O-tetradecanoylphorbol-13-acetate (TPA) (PMID:21047770, 28969043).

Treatment increasing the expression of MMP-9 is recommended when using this antibody.



Western blot - Anti-MMP9 antibody [EP1255Y] (ab137867)

Anti-MMP9 antibody [EP1255Y] (ab137867) at 1/1000 dilution (unpurified) + U937 cell lysate at 10 μ g

Secondary

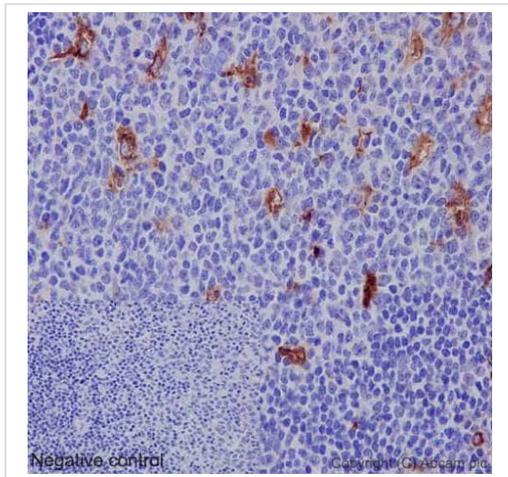
Peroxidase conjugated goat anti-rabbit IgG (H+L) at 1/1000 dilution

Predicted band size: 78 kDa

Observed band size: 78 kDa

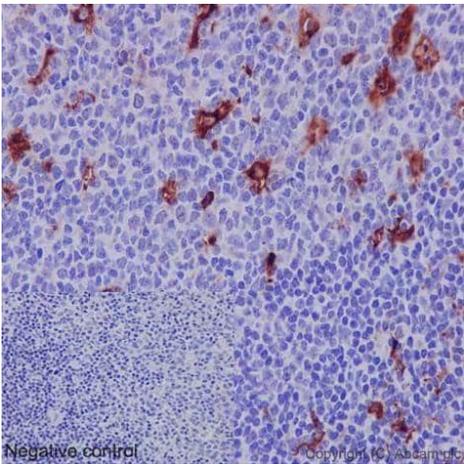
Blocking buffer and concentration: 5% NFDN/TBST.

Diluting buffer and concentration: 5% NFDN /TBST.



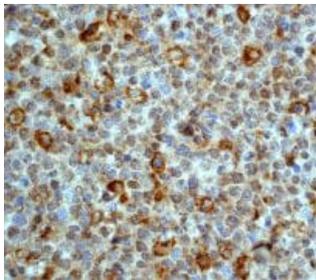
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MMP9 antibody [EP1255Y] (ab137867)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human tonsil tissue labelling MMP9 with unpurified ab137867 at 1/800. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. A prediluted HRP-polymer conjugated anti-rabbit IgG was used as the secondary antibody. Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MMP9 antibody [EP1255Y] (ab137867)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human tonsil tissue labelling MMP9 with purified ab137867 at 1/1000. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. A prediluted HRP-polymer conjugated anti-rabbit IgG was used as the secondary antibody. Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MMP9 antibody [EP1255Y] (ab137867)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human lymphoma tissue labelling MMP9 with unpurified ab137867 at 1/100. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Why choose a recombinant antibody?

 Research with confidence Consistent and reproducible results	 Long-term and scalable supply Recombinant technology
 Success from the first experiment Confirmed specificity	 Ethical standards compliant Animal-free production

Anti-MMP9 antibody [EP1255Y] (ab137867)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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