

Anti-MMP9 antibody [EPR22140-154] ab228402

リコンビナント **RabMAb**

★★★★★ **4 Abreviews** **45 References** 画像数 8

製品の概要

製品名	Anti-MMP9 antibody [EPR22140-154]
製品の詳細	Rabbit monoclonal [EPR22140-154] to MMP9
由来種	Rabbit
アプリケーション	適用あり: IP, IHC-P, IHC-Fr, WB
種交差性	交差種: Mouse, Rat
免疫原	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
ポジティブ・コントロール	WB: Mouse lung lysate; Rat lung, kidney, lymph node and spleen lysates. IHC-P: Mouse spleen and lung tissues; Rat spleen tissue. IHC-Fr: Mouse lung tissue. IP: Mouse lung lysate.
特記事項	<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>

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
バッファー	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: PBS, 40% Glycerol, 0.05% BSA</p>
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	EPR22140-154
アイソタイプ	IgG

アプリケーション

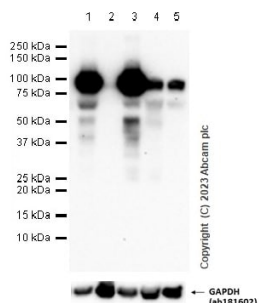
The Abpromise guarantee Abpromise保証は、 次のテスト済みアプリケーションにおけるab228402の使用に適用されます
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
IP		1/30.
IHC-P	★★★★★ (1)	1/5000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
IHC-Fr	★★★★★ (1)	1/100.
WB	★★★★★ (2)	1/1000. Detects a band of approximately 92 kDa (predicted molecular weight: 81 kDa).

ターゲット情報

機能	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.
組織特異性	Produced by normal alveolar macrophages and granulocytes.
関連疾患	Intervertebral disc disease Metaphyseal anadysplasia 2
配列類似性	Belongs to the peptidase M10A family. Contains 3 fibronectin type-II domains. Contains 4 hemopexin repeats.
ドメイン	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.
翻訳後修飾	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.
細胞内局在	Secreted, extracellular space, extracellular matrix.

画像



Western blot - Anti-MMP9 antibody [EPR22140-154] (ab228402)

All lanes : Anti-MMP9 antibody [EPR22140-154] (ab228402) at 1/1000 dilution

Lane 1 : Rat lung tissue lysate

Lane 2 : Rat brain tissue lysate

Lane 3 : Rat spleen tissue lysate

Lane 4 : Rat kidney tissue lysate

Lane 5 : Rat lymph node tissue 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: 81 kDa

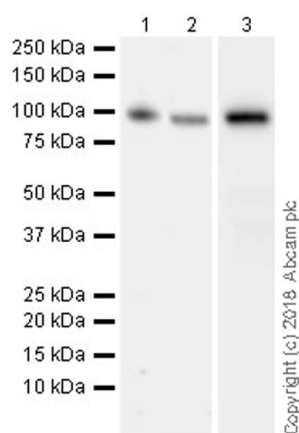
Observed band size: 84-92 kDa

Exposure time: 3 seconds

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

[ab181602](#) was used as loading control for GAPDH.

Although MMP9 has been studied in brain in some publications, ab228402 was unable to detect signal in normal brain tissue, this may be because MMP9 expression level is low in normal brain and would be increased in abnormal conditions like injury (PMID: 31198417)



Western blot - Anti-MMP9 antibody [EPR22140-154]
(ab228402)

All lanes : Anti-MMP9 antibody [EPR22140-154] (ab228402) at 1/1000 dilution

Lane 1 : Mouse lung lysate

Lane 2 : Rat lung lysate

Lane 3 : Rat spleen lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

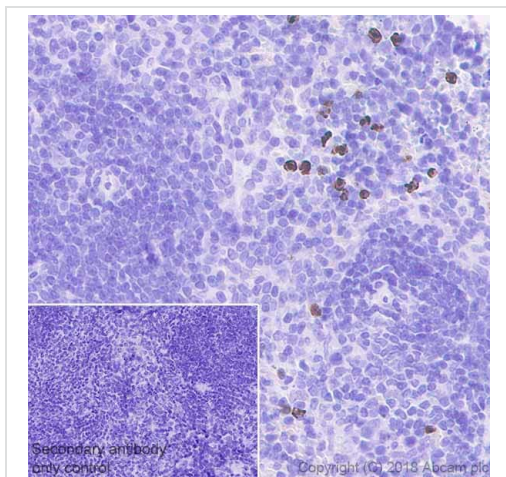
Predicted band size: 81 kDa

Observed band size: 92 kDa

Exposure times : Lanes 1-2: 3 minutes; Lane 3: 26 seconds.

Blocking/Dilution buffer: 5% NFDm/TBST.

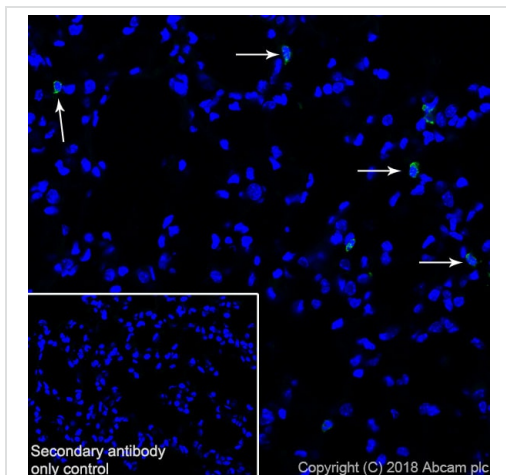
MMP9 is a glycoprotein (PMID: 29329315). The 92 kDa band likely represents the zymogen prior to activating cleavage of the pro-peptide (PMID: 7688350; PMID: 12901881).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MMP9 antibody [EPR22140-154] (ab228402)

Immunohistochemical analysis of paraffin-embedded mouse spleen tissue labeling MMP9 with ab228402 at 1/5,000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on polymorphonuclear leukocytes of mouse spleen (PMID: 28775117). Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Heat-mediated antigen retrieval using citrate buffer (pH 6.0).



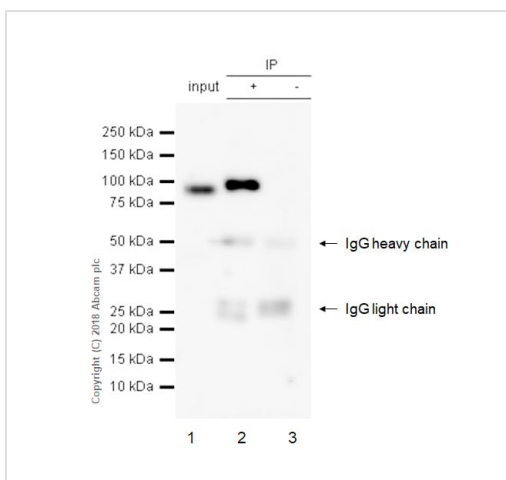
Immunohistochemistry (Frozen sections) - Anti-MMP9 antibody [EPR22140-154] (ab228402)

Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen mouse lung tissue labeling MMP9 with ab228402 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1,000 dilution (green). Positive staining on sporadic cells (macrophage-like) in mouse lung tissue is observed.

The nuclear counterstain is DAPI (blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1,000 dilution.

Heat-mediated antigen retrieval using sodium citrate buffer (10 mM citrate pH 6.0 + 0.05% Tween-20).



Immunoprecipitation - Anti-MMP9 antibody [EPR22140-154] (ab228402)

MMP9 was immunoprecipitated from 0.35 mg of mouse brain lysate with ab228402 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab228402 at 1/1,000 dilution. VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used for detection at 1/5,000 dilution.

Lane 1: Mouse lung lysate 10 µg (Input).

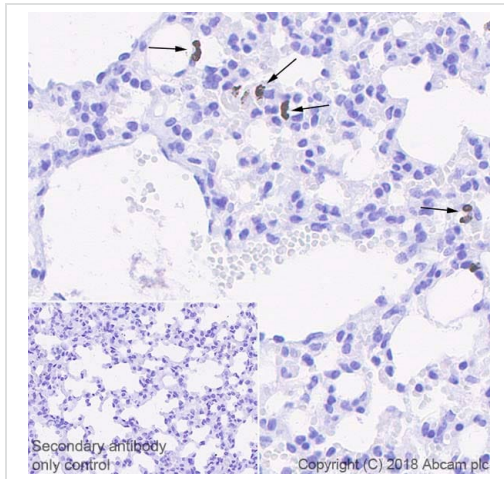
Lane 2: ab228402 IP in mouse lung lysate.

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of ab228402 in mouse lung lysate.

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure time: 20 seconds.

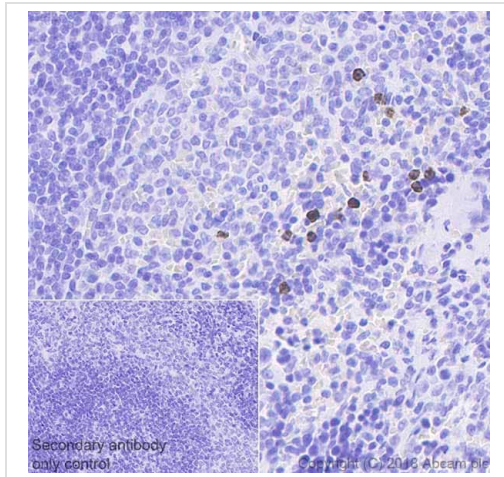
The blot was developed using a high sensitivity ECL.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MMP9 antibody
[EPR22140-154] (ab228402)

Immunohistochemical analysis of paraffin-embedded mouse lung tissue labeling MMP9 with ab228402 at 1/5,000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on polymorphonuclear leukocytes of mouse lung (PMID: 28775117). Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Heat-mediated antigen retrieval using citrate buffer (pH 6.0).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MMP9 antibody
[EPR22140-154] (ab228402)

Immunohistochemical analysis of paraffin-embedded rat spleen tissue labeling MMP9 with ab228402 at 1/5,000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on polymorphonuclear leukocytes of rat spleen (PMID: 28775117). Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Heat-mediated antigen retrieval using citrate buffer (pH 6.0).

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 [EPR22140-154] (ab228402)

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

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.co.jp/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors