

Product datasheet

Anti-MMP14 antibody [EP1264Y] ab51074

リコンビナント RabMAb®

★★★★☆ 13 Abreviews 66 References 画像数 7

製品の概要

製品名	Anti-MMP14 antibody [EP1264Y]
製品の詳細	Rabbit monoclonal [EP1264Y] to MMP14
由来種	Rabbit
アプリケーション	適用あり: Flow Cyt, IHC-P, IP, WB, ICC/IF
種交差性	交差種: Mouse, Rat, Human 交差が予測される動物種: Cow
免疫原	Synthetic peptide within Human MMP14 aa 150-250. The exact sequence is proprietary. Database link: P50281 (Peptide available as ab185123)
ポジティブ・コントロール	IHC: Human breast carcinoma, endometrium carcinoma and kidney tissues. WB: Human fetal spleen, esophagus and lung cancer tissue lysates, mouse and rat spleen tissue lysates and A431 whole cell lysate. Flow Cyt: A549 cells. IP: A431 cell lysate.
特記事項	A trial size is available to purchase for this antibody. The mouse and rat recommendation is based on the WB results. This antibody may not be suitable for IHC with mouse or rat samples. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents . 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. This product is a recombinant rabbit monoclonal antibody .

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	pH: 7.20

Preservative: 0.01% Sodium azide
Constituents: PBS, 40% Glycerol, 0.05% BSA

精製度 Protein A purified
ポリ/モノ モノクローナル
クローン名 EP1264Y
アイソタイプ IgG

アプリケーション

Our [Abpromise guarantee](#) covers the use of **ab51074** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

アプリケーション	Abreviews	特記事項
Flow Cyt	★★★★☆	1/20.
IHC-P	★★★★☆	1/100.
IP		1/20. For unpurified use at 1/100.
WB	★★★★☆	1/5000. Predicted molecular weight: 66 kDa. Can be blocked with MMP14 peptide (ab185123) . For unpurified use at 1/2000.
ICC/IF	★★★★☆	Use at an assay dependent concentration.

ターゲット情報

機能 Seems to specifically activate progelatinase A. May thus trigger invasion by tumor cells by activating progelatinase A on the tumor cell surface. May be involved in actin cytoskeleton reorganization by cleaving PTK7.

組織特異性 Expressed in stromal cells of colon, breast, and head and neck. Expressed in lung tumors.

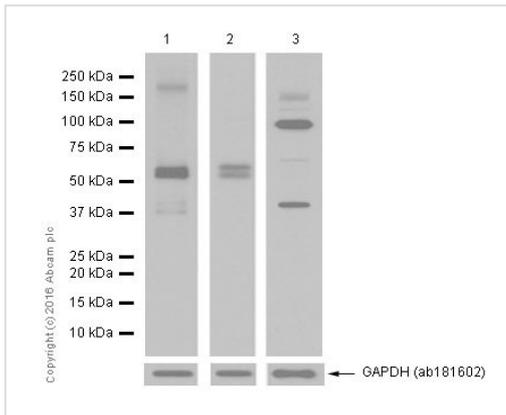
配列類似性 Belongs to the peptidase M10A family.
Contains 4 hemopexin-like domains.

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 The precursor is cleaved by a furin endopeptidase.

細胞内局在 Membrane. Melanosome. Identified by mass spectrometry in melanosome fractions from stage I to stage IV.

画像



Western blot - Anti-MMP14 antibody [EP1264Y] (ab51074)

All lanes : Anti-MMP14 antibody [EP1264Y] (ab51074) at 1/2000 dilution (unpurified)

Lane 1 : Human fetal spleen tissue lysate

Lane 2 : Human lung cancer tissue lysate

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

Lysates/proteins at 15 µg per lane.

Secondary

All lanes : Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/2000 dilution

Predicted band size: 66 kDa

Observed band size: 60,63 kDa

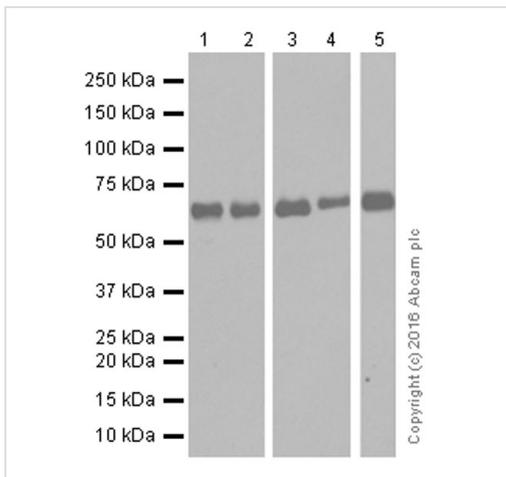
[why is the actual band size different from the predicted?](#)

Exposure time: 10 seconds

Blocking/Diluting buffer and concentration 5% NFDm/TBST

63 kDa: pro-form; 60 kDa: active form.

MCF7 is a MMP14 negative or weakly expressed cell line (PMID: 25977338 and PMID: 19208838).



Western blot - Anti-MMP14 antibody [EP1264Y] (ab51074)

All lanes : Anti-MMP14 antibody [EP1264Y] (ab51074) at 1/5000 dilution (purified)

Lane 1 : Human fetal spleen lysate

Lane 2 : Human lung cancer lysate

Lane 3 : Mouse spleen lysate

Lane 4 : Rat spleen lysate

Lane 5 : Human esophagus lysate

Lysates/proteins at 20 µg per lane.

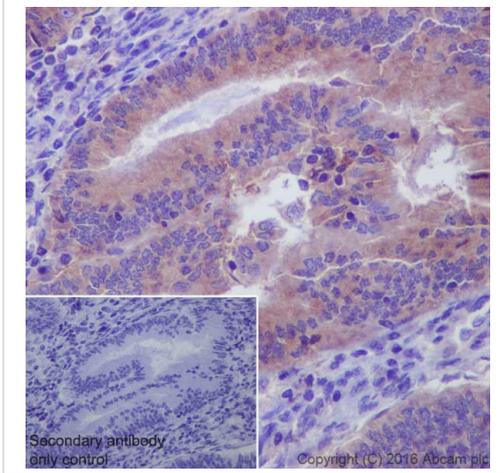
Secondary

All lanes : Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/2000 dilution

Predicted band size: 66 kDa

Observed band size: 66 kDa

Blocking and diluting buffer: 5% NFD/MTBST.

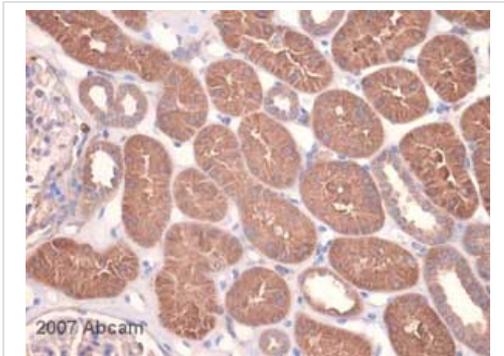


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human endometrium carcinoma tissue sections labeling MMP14 with purified ab51074 at 1/100 dilution (1.7 µg/ml). Heat mediated antigen retrieval was performed using EDTA Buffer, PH9. Hematoxylin was used to counterstain.

ab97051, a Goat Anti-Rabbit IgG H&L (HRP) secondary antibody was used at 1/500 dilution.

PBS instead of the primary antibody was used as the negative control (inset).

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MMP14 antibody [EP1264Y] (ab51074)

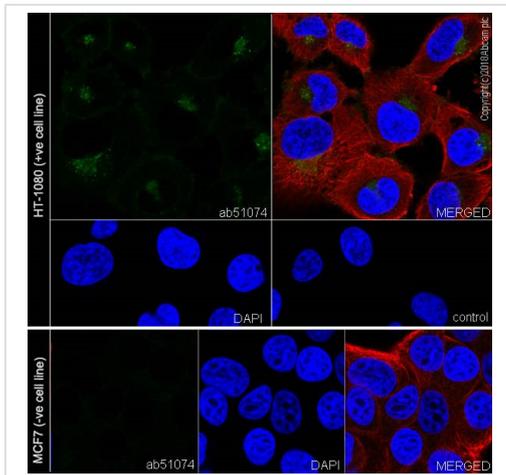


ab51074 (unpurified) at 1/500 staining human kidney tissue sections by IHC-P.

The tissue was formaldehyde fixed and a heat mediated antigen retrieval step (in Tris/EDTA) was performed. The tissue was then blocked with serum and incubated with the primary antibody. A biotinylated donkey anti-rabbit IgG was used as the secondary.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MMP14 antibody [EP1264Y] (ab51074)

This image is courtesy of an anonymous Abreview

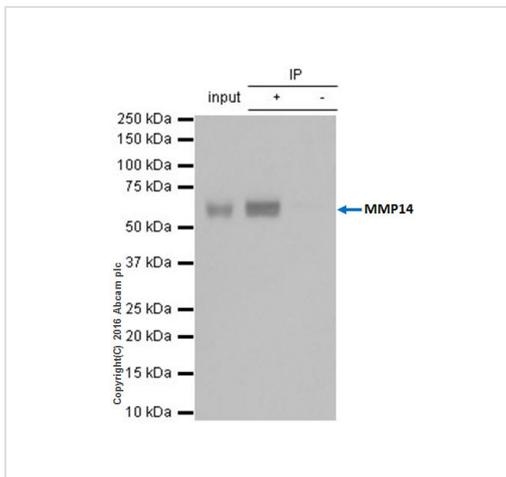


Immunocytochemistry/ Immunofluorescence - Anti-MMP14 antibody [EP1264Y] (ab51074)

Ab51074 staining MMP14 in HT-1080 (human fibrosarcoma epithelial cell) cells by ICC/IF (Immunocytochemistry/Immunofluorescence).

Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Samples were incubated with primary antibody at 1/1000 dilution (0.2 µg/ml). An Alexa Fluor® 488 Goat anti-rabbit (ab150077) was used as the secondary antibody at 1/1000 dilution (2 µg/ml). Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594, ab195889) was used as the counterstain antibody at 1/200 dilution (2.5 µg/ml). DAPI was used as a nuclear counterstain. Confocal image showing cytoplasmic and weakly membranous staining in HT-1080 cell line.

Negative control (bottom panels): MCF7 PMID: 19208838.



Immunoprecipitation - Anti-MMP14 antibody [EP1264Y] (ab51074)

ab51074 (purified) at 1/20 dilution (2 µg) immunoprecipitating MMP14 in A431 (human epidermoid carcinoma) whole cell lysate.

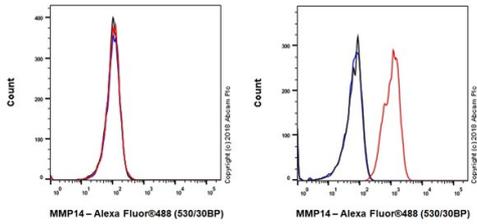
Lane 1: A431 whole cell lysate 10ug

Lane 2: ab51074 + A431 whole cell lysate

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab51074 in A431 whole cell lysate

For western blotting, ab131366 VeriBlot for IP (HRP) was used as the secondary antibody (1/1000).

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



Flow Cytometry - Anti-MMP14 antibody [EP1264Y]
(ab51074)

Flow cytometry analysis of MCF7 (Human breast adenocarcinoma epithelial cell, Left) / HT-1080 (Human fibrosarcoma epithelial cell, Right) cells labeling MMP14 with ab51074 at 1/200 dilution (0.1 µg) (red). Goat anti-rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1/2000 dilution. Rabbit monoclonal IgG (ab172730) / black was used as the isotype control. Cells incubated with secondary antibody only (blue) was used as the unlabeled control. Gated on viable cells.

Positive control (Right panel): HT-1080 cells.

Negative control (Left panel): MCF7 cells.

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