abcam

Product datasheet

Anti-MMP9 antibody [EP1254] - BSA and Azide free ab204850

リコンビナント RabMAb

★★★★☆ 1 Abreviews 1 References 画像数 8

製品の概要

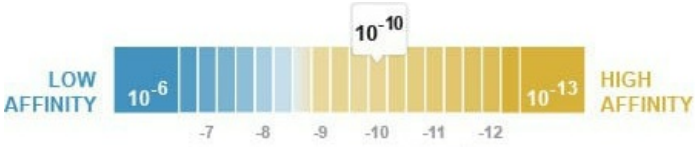
製品名	Anti-MMP9 antibody [EP1254] - BSA and Azide free
製品の詳細	Rabbit monoclonal [EP1254] to MMP9 - BSA and Azide free
由来種	Rabbit
特異性	Based on our preliminary data, ab204850 detects no or weak band of interest in the untreated cell lines at the dilution of 1/200. Treatment increasing the expression of MMP-9 is recommended when using this antibody.
アプリケーション	**適用あり:** ICC/IF, IHC-P, WB, Flow Cyt (Intra)
種交差性	**交差種:** Rat, Human, Recombinant fragment
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
ポジティブ・コントロール	WB: U937, HL60 and TPA treated HT1080 cell lysates, human and rat lung, spleen and lymph node tissue lysate. IHC-P: Human gastic adenocarcinoma and spleen tissue. ICC/IF: U-2 OS and domoic acid-treated U87-MG cells. Flow Cyt (intra): A431 cells.
特記事項	ab204850 is the carrier-free version of **ab76003**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Mouse: We have preliminary internal testing data to indicate this antibody may not react with this species. Please contact us for more information.

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C. Do Not Freeze.
解離定数（K_D 値）	K_D = 1.58 x 10 $^{-10}$ M



Learn more about K_D

バッファー	pH: 7.20 Constituent: 100% PBS
キャリア・フリー	はい
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	EP1254
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ab204850の使用に適用されます

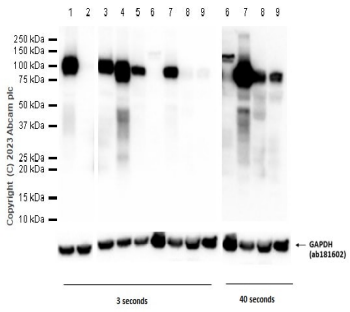
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
ICC/IF		Use at an assay dependent concentration.
IHC-P	★★★★☆ (1)	Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		Use at an assay dependent concentration. Predicted molecular weight: 78 kDa. Based on our preliminary data, ab204850 detects no or weak band of interest in the untreated cell lines at the dilution of 1/200. Treatment increasing the expression of MMP-9 is recommended when using this antibody.
Flow Cyt (Intra)		Use at an assay dependent concentration.

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 [EP1254] - BSA and Azide free (ab204850)

All lanes : Anti-MMP9 antibody [EP1254] (**ab76003**) at 1/1000 dilution

Lane 1 : Human lung tissue lysate
Lane 2 : Human brain tissue lysate
Lane 3 : Human spleen tissue lysate
Lane 4 : Human lymph node tissue lysate
Lane 5 : Rat lung tissue lysate
Lane 6 : Rat brain tissue lysate
Lane 7 : Rat spleen tissue lysate
Lane 8 : Rat kidney tissue lysate
Lane 9 : 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: 78 kDa
Observed band size: 84-92 kDa

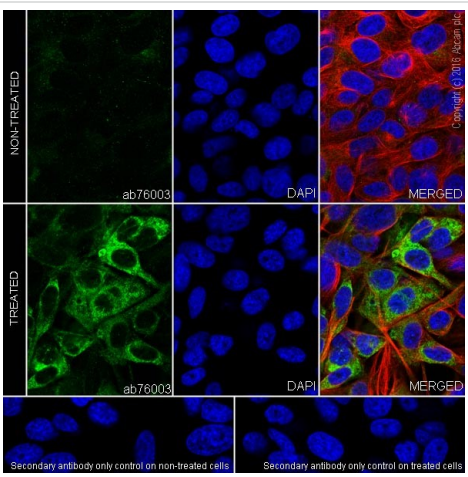
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab76003**).

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

Exposure time: 3 seconds; 40 seconds.

ab181602 was used as loading control for GAPDH.

Although MMP9 has been studied in brain in some publications, **ab76003** was unable to detect signal in normal brain tissue, this may because MMP9 expression level is low in normal brain and would be increased in abnormal conditions like injury (PMID: 31198417).



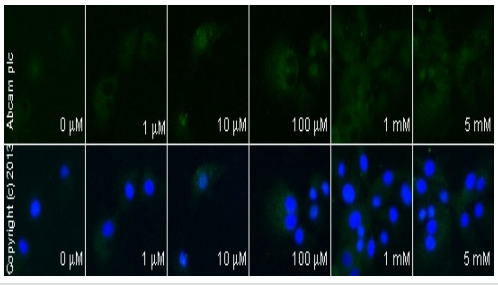
Immunocytochemistry/ Immunofluorescence - Anti-MMP9 antibody [EP1254] - BSA and Azide free (ab204850)

Immunocytochemistry/Immunofluorescence analysis of U-2 OS (human osteosarcoma) cells labeling MMP9 with **ab76003** at 1/500 (4.3 µg/mL). Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. **ab150077**, Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000, 2 µg/mL) was used as the secondary antibody. Cells were counterstained with **ab195889** Anti-Alpha Tubulin antibody [DM1A] (1/200, 2.5 µg/mL) - Microtubule Marker (Alexa Fluor® 594). DAPI (blue) was used as a nuclear counterstain.

Confocal image showing cytoplasmic staining onU-2 OS cells, the expression increased after treatment with TPA (200 nM) for 24 hours (middle panel).

Secondary Only Control: PBS was used instead of the primary antibody as the negative control with both TPA treated and untreated U-2 OS cells.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab76003**).

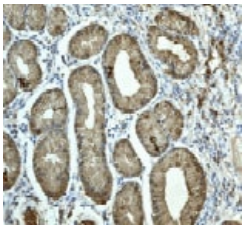


Immunocytochemistry/ Immunofluorescence - Anti-MMP9 antibody [EP1254] - BSA and Azide free (ab204850)

Unpurified **ab76003** staining MMP9 in U87-MG cells treated with domoic acid (**ab120338**), by ICC/IF. Increase of MMP9 expression correlates with increased concentration of domoic acid, as described in literature.

The cells were incubated at 37°C for 6h in media containing different concentrations of **ab120338** (domoic acid) in DMSO, fixed with 4% formaldehyde for 10 minutes at room temperature and blocked with PBS containing 10% goat serum, 0.3 M glycine, 1% BSA and 0.1% tween for 2h at room temperature. Staining of the treated cells with unpurified **ab76003** (1/200) dilution was performed overnight at 4°C in PBS containing 1% BSA and 0.1% tween. A DyLight® 488 anti-rabbit polyclonal antibody (**ab96899**) at 1/250 dilution was used as the secondary antibody. Nuclei were counterstained with DAPI and are shown in blue.

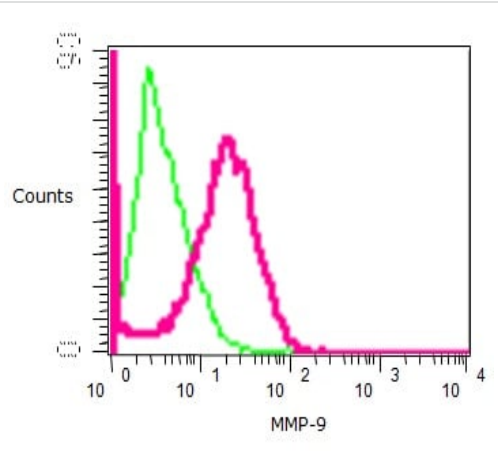
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab76003**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MMP9 antibody [EP1254] - BSA and Azide free (ab204850)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human gastric adenocarcinoma tissue labeling MMP9 with unpurified **ab76003** at a dilution of 1/100.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab76003**).

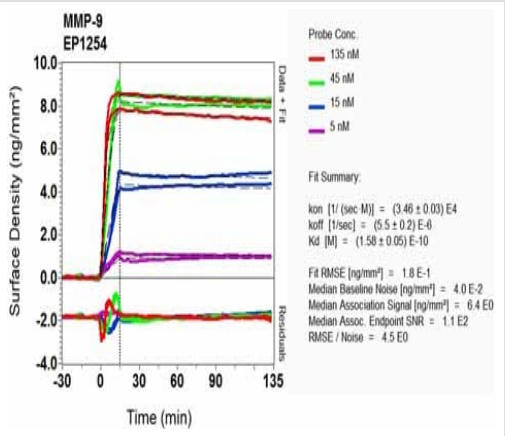


Flow Cytometry (Intracellular) - Anti-MMP9 antibody [EP1254] - BSA and Azide free (ab204850)

Overlay histogram showing permeabilized A431 (Human epidermoid carcinoma cell line) cells stained with unpurified **ab76003** (pink line).

Negative control antibody (green line) was rabbit IgG.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab76003**).



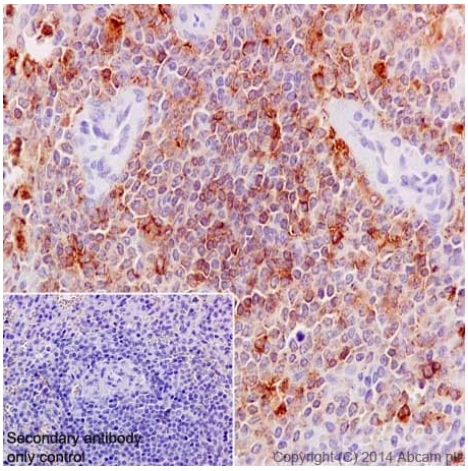
OI-RD Scanning - Anti-MMP9 antibody [EP1254] - BSA and Azide free (ab204850)

Equilibrium disassociation constant (K_D)

Learn more about K_D

Click here to learn more about K_D

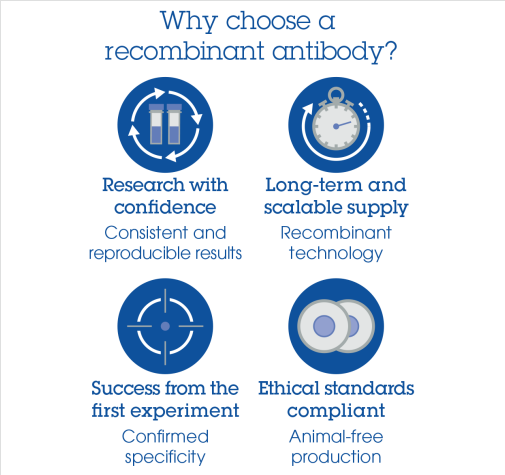
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab76003**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MMP9 antibody [EP1254] - BSA and Azide free (ab204850)

This IHC data was generated using the same anti-MMP9 antibody clone, EP1254, in a different buffer formulation (cat# **ab76003**).

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human spleen tissue labelling MMP9 with purified **ab76003** at 1/1000. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. **ab97051**, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.



Anti-MMP9 antibody [EP1254] - BSA and Azide free (ab204850)

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