abcam

ab249905

Anti-MMP7 antibody [EPR1251(2)] - BSA and Azide free

Recombinant | RabMAb | KO Validated

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR1251(2)
Purification technique	Affinity purification Protein A
Concentration	1.032 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Not recommended

Species	Human
Dilution info	-

Notes	-

IP

Not recommended

Species	Human
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Target data

See full target information MMP7

Function	Degrades casein, gelatins of types I, III, IV, and V, and fibronectin. Activates procollagenase.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab249905 is the carrier-free version of ab176325.

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

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

What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. 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.

Compatibility
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.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	MMP7 also known as matrilysin is a member of the matrix metalloproteinase family and has a molecular weight of approximately 28 kDa. Mechanically MMP7 participates in the breakdown of extracellular matrix components such as elastin casein and various collagens. It is important in tissue remodeling processes. MMP7 is expressed in multiple tissues including the glandular epithelia of the breast prostate and lung.
Biological function summary	MMP7 participates in wound healing embryonic development and tissue invasion processes. It does not typically form large complexes but can interact with other ECM components and inhibitors like TIMPs (tissue inhibitors of metalloproteinases). MMP7 has specific roles in regulating cellular environments by modifying the ECM and influencing the bioavailability of growth factors.
Pathways	MMP7 plays significant roles in pathways like the Wnt and MAPK signaling pathways. In the Wnt pathway MMP7 modulates the availability of bound matrix proteins influencing signaling dynamics. It interacts with proteins such as B-catenin and influences downstream gene expression. In the context of MAPK pathways MMP7 activity can lead to signal transduction changes that impact cell proliferation and migration.
Associated diseases and disorders	MMP7 has associations with cancer progression and fibrosis. In colorectal cancer for example MMP7 expression levels correlate with tumor invasion and metastasis. It interacts with proteins like E-cadherin which affects cell adhesion properties and promotes disease advancement. In pulmonary fibrosis excessive MMP7 activity contributes to matrix degradation and aberrant tissue repair highlighting its relevance in pathological conditions.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

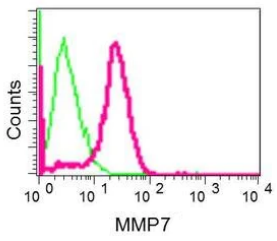
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

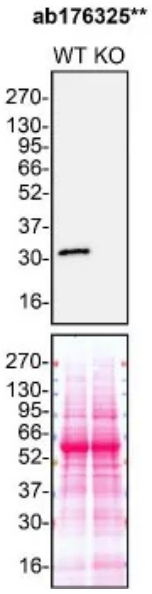
3 product images



Flow Cytometry (Intracellular) - Anti-MMP7 antibody [EPR1251(2)] - BSA and Azide free (ab249905)

MMP7 Flow Cytometry (Intracellular) staining using rabbit Anti-MMP7 antibody

This data was developed using ab176325, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of permeabilized BxPC-3 cells labeling MMP7 using ab176325 at a 1/100 dilution (red) or a rabbit IgG control (green).



Western blot - Anti-MMP7 antibody [EPR1251(2)] - BSA and Azide free (ab249905)

MMP7 Western blot staining using rabbit Anti-MMP7 antibody

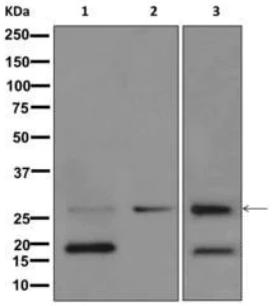
This data was developed using ab176325, the same antibody clone in a different buffer formulation.

ab176325 was shown to react with MMP7 in wild-type A549 cells in Western blot with loss of signal observed in a MMP7 knockout cell line. Wild-type A549 and MMP7 knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 5% milk in TBST for 1 hr before incubation with ab176325 overnight at 4 °C at a 1/1000 dilution. Blots were incubated with secondary antibodies at 0.2 µg/mL before imaging.

This data was provided by YCharOS Inc., an open science company with the mission of characterizing commercially available antibody reagents for all human proteins. Abcam and YCharOS are working together to help address the reproducibility crisis by enabling the life science community to better evaluate commercially available antibodies.
All lanes:
Western blot - Anti-MMP7 antibody [EPR1251(2)] (ab176325) at 1/1000 dilution

Lane 1:
Wild-type HepG2 lysate at 30 µg

Lane 2:
Western blot - Human NR3C1 knockout A549 cell line (ab328859) at 30 µg



Western blot - Anti-MMP7 antibody [EPR1251(2)] - BSA and Azide free (ab249905)

This data was developed using ab176325, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-MMP7 antibody [EPR1251(2)] (ab176325) at 1/1000 dilution

Lane 1:
Human prostate lysate at 10 µg

Lane 2:
BxPC-3 lysate at 10 µg

Lane 3:
Human colon cancer lysate at 10 µg

Predicted band size: 29 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.