abcam

ab276138

Anti-ADAMTS1 antibody [EPR23324-45] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR23324-45
Purification technique	Affinity purification Protein A
Concentration	1.01 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Not recommended

Species	Mouse, Human, Rat
Dilution info	-

Notes	-

WB

Tested

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Human, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

Target data

See full target information A disintegrin and metalloproteinase with thrombospondin motifs 1

Function	Metalloprotease which cleaves aggrecan, a cartilage proteoglycan, at the '1691-Glu-|-Leu-1692' site (within the chondroitin sulfate attachment domain), and may be involved in its turnover (PubMed:10930576, PubMed:9441751). Also cleaves COMP (By similarity). Has angiogenic inhibitor activity (By similarity). May play a critical role in follicular rupture (PubMed:10781075).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

ab276138 is the carrier-free version of ab276133.

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	ADAMTS1 short for a disintegrin and metalloproteinase with thrombospondin motifs 1 is an enzyme with a mass of around 110 kDa. Researchers often study this enzyme for its role in protein degradation and modification. ADAMTS1 is found in various tissues including the heart lungs and kidneys. This protein has several aliases sometimes referred to as ADAMTS-1 or ADAM-TS1. Its primary function involves processing extracellular matrix components such as aggrecan and versican which contribute to tissue remodeling.
Biological function summary	The influence of ADAMTS1 extends to various physiological and developmental processes. This enzyme participates in the modulation of angiogenesis inflammation and reproductive functions. It operates within a complex of metalloproteinases coordinating the breakdown of matrix proteins. Through these activities ADAMTS1 maintains tissue integrity and homeostasis. It particularly plays an essential role in the regulation of proteoglycans which are critical in cellular communication and structure.
Pathways	The actions of ADAMTS1 intersect within the extracellular matrix organization and integrin signaling pathways. These pathways are important for cell adhesion and migration contributing to tissue morphogenesis and repair. ADAMTS1 shows interaction with proteins like integrins and other matrix metalloproteinases establishing a network critical for cellular structural changes and signal transduction. These interactions ensure balanced tissue development and response to environmental changes.
Associated diseases and disorders	The dysfunction of ADAMTS1 has links to conditions like osteoarthritis and cancer. In osteoarthritis inadequate regulation of matrix components by ADAMTS1 can lead to joint degradation. In cancer its dysregulation may influence tumor growth and metastasis. ADAMTS1 interacts with other proteins implicated in these diseases such as aggrecanases in osteoarthritis and integrins in cancer. These connections highlight the potential role of ADAMTS1 as a therapeutic target in managing these complex diseases.

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.

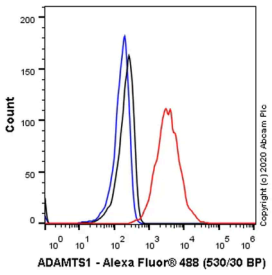
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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3 product images

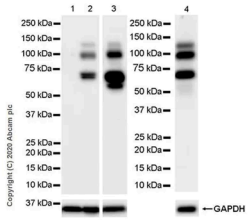


Flow Cytometry (Intracellular) - Anti-ADAMTS1 antibody [EPR23324-45] - BSA and Azide free (ab276138)

ADAMTS1 Flow Cytometry (Intracellular) staining using rabbit Anti-ADAMTS1 antibody

This data was developed using ab276133, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized 4T1 (mouse mammary gland carcinoma epithelial cell) cells labelling ADAMTS1 with ab276133 at 1/500 dilution (0.1ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) isotype control (Black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).

A Goat anti rabbit IgG (Alexa Fluor®488, ab150077) at 1/2000 dilution was used as the secondary antibody.



Western blot - Anti-ADAMTS1 antibody [EPR23324-45] - BSA and Azide free (ab276138)

This data was developed using ab276133, the same antibody clone in a different buffer formulation.
Blocking and diluting buffer and concentration: 5% NFDM/TBST.

The molecular weight observed are consistent with what have been described in literatures (PMID: 17560840, 23289900, 15184385, 12907688).

Low expression: mouse brain (PMID: 11108265).

Exposure time: 15 seconds.

All lanes:
Western blot - Anti-ADAMTS1 antibody [EPR23324-45] (ab276133) at 1/1000 dilution

Lane 1:
Mouse brain tissue lysate at 20 µg

Lane 2:
Mouse E17 embryo tissue lysate at 20 µg

Lane 3:
Mouse kidney tissue lysate at 20 µg

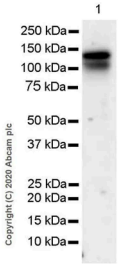
Lane 4:
Mouse lung tissue lysate at 20 µg

Secondary

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

Predicted band size: 105 kDa

Observed band size: 100 kDa, 120 kDa, 60-70 kDa



Western blot - Anti-ADAMTS1 antibody [EPR23324-45] - BSA and Azide free (ab276138)

This data was developed using ab276133, the same antibody clone in a different buffer formulation.
Blocking and diluting buffer and concentration: 5% NFDM/TBST.

The molecular weight observed are consistent with what have been described in literatures (PMID: 17560840, 23289900, 15184385, 12907688).

4T1 whole cell lysate is made freshly and used in WB test immediately to minimize protein degradation.

Exposure time: 92 seconds.

All lanes:
Western blot - Anti-ADAMTS1 antibody [EPR23324-45] (ab276133) at 1/1000 dilution

All lanes:
4T1 (mouse mammary gland carcinoma epithelial cell) whole cell fresh lysate at 20 µg

Secondary

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

Predicted band size: 105 kDa

Observed band size: 100 kDa, 120 kDa

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