

Product datasheet

Anti-ADAMTS5 antibody ab41037

★★★★★ [9 Abreviews](#) [159 References](#) [3 Images](#)

Overview

Product name	Anti-ADAMTS5 antibody
Description	Rabbit polyclonal to ADAMTS5
Host species	Rabbit
Tested applications	Suitable for: WB
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide corresponding to Human ADAMTS5 aa 600-700 conjugated to keyhole limpet haemocyanin. (Peptide available as ab41036)

General notes

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab41037 in the following tested applications.

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

Application	Abreviews	Notes
WB	★★★★★ (3)	1/250. Detects a band of approximately 73 kDa (predicted molecular weight: 102 kDa). ab41037 appears to detect the 73kDa cleaved form of ADAMTS5. The precursor of this secreted protein is cleaved at a furin cleavage site by a furin endopeptidase.

Target

Function

Cleaves aggrecan, a cartilage proteoglycan, and may be involved in its turnover. May play an important role in the destruction of aggrecan in arthritic diseases. May play a role in proteolytic processing mostly during the peri-implantation period.

Tissue specificity

Expressed at low level in placenta primarily but also detected in heart and brain, cervix, uterus, bladder, esophagus, rib cartilage, chondroblastoma, fibrous tissue and a joint capsule from an arthritic patient.

Sequence similarities

Contains 1 disintegrin domain.
Contains 1 peptidase M12B domain.
Contains 2 TSP type-1 domains.

Domain

The spacer domain and the TSP type-1 domains are important for a tight interaction with the extracellular matrix.

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.

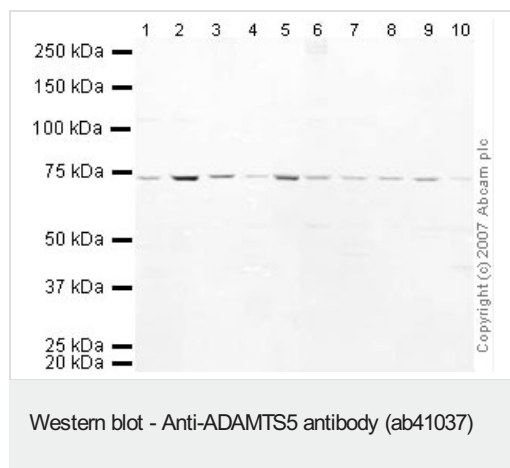
Post-translational modifications

The precursor is cleaved by a furin endopeptidase.

Cellular localization

Secreted > extracellular space > extracellular matrix.

Images



All lanes : Anti-ADAMTS5 antibody (ab41037) at 1/250 dilution

Lane 1 : NIH/3T3 whole cell lysate ([ab7179](#))

Lane 2 : MEF1 (Mouse embryonic fibroblast cell line) Whole Cell Lysate

Lane 3 : Brain (Mouse) Tissue Lysate

Lane 4 : Liver (Mouse) Tissue Lysate - normal tissue

Lane 5 : Testis (Mouse) Tissue Lysate - normal tissue

Lane 6 : Spinal Cord (Mouse) Tissue Lysate

Lane 7 : Ovary (Mouse) Tissue Lysate - normal tissue

Lane 8 : PC12 (Rat adrenal pheochromocytoma cell line) Whole Cell Lysate

Lane 9 : Brain (Rat) Tissue Lysate - normal tissue

Lane 10 : Liver (Rat) Tissue Lysate

Lysates/proteins at 10 µg per lane.

Secondary

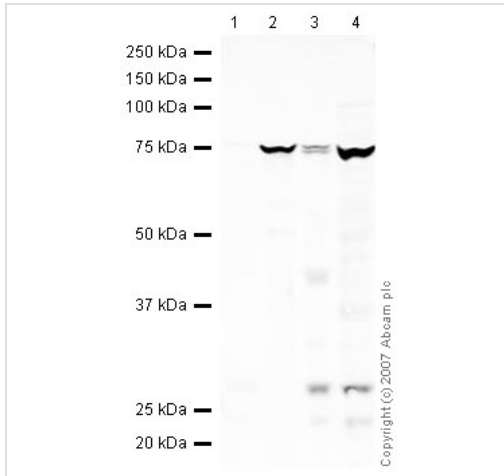
All lanes : IRDye 680 Conjugated Goat Anti-Rabbit IgG (H+L) at 1/10000 dilution

Performed under reducing conditions.

Predicted band size: 102 kDa

Observed band size: 73 kDa

ab41037 appears to detect at 73kDa cleaved form of ADAMTS5. The precursor of this secreted protein is cleaved at a furin cleavage site by a furin endopeptidase.



Western blot - Anti-ADAMTS5 antibody (ab41037)

All lanes : Anti-ADAMTS5 antibody (ab41037) at 1/250 dilution

Lane 1 : Human placenta tissue lysate - total protein (**ab29745**)

Lane 2 : Mouse placenta normal tissue lysate - total protein (**ab29139**)

Lane 3 : Uterus (Human) Whole Cell Lysate - normal tissue

Lane 4 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : IRDye 680 Conjugated Goat Anti-Rabbit IgG (H+L) at 1/10000 dilution

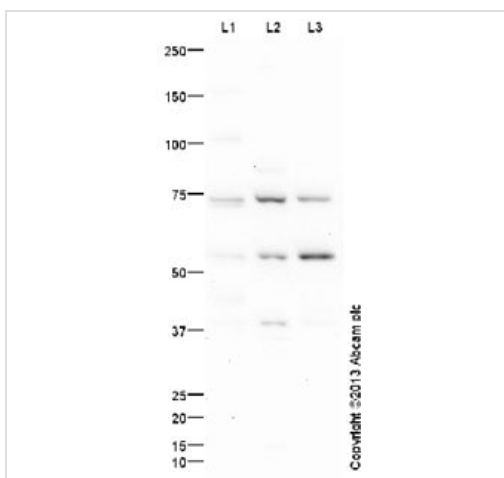
Performed under reducing conditions.

Predicted band size: 102 kDa

Observed band size: 73 kDa

Additional bands at: 27 kDa. We are unsure as to the identity of these extra bands.

ab41037 appears to detect a 73kDa cleaved form of ADAMTS5. The precursor of this secreted protein is cleaved at a furin cleavage site by a furin endopeptidase. The doublet observed in human uterus lysate is possibly due to glycosylation.



Western blot - Anti-ADAMTS5 antibody (ab41037)

All lanes : Anti-ADAMTS5 antibody (ab41037) at 1 µg/ml (blocked with 3% Milk)

Lane 1 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate

Lane 2 : MEF1 (Mouse embryonic fibroblast cell line) Whole Cell Lysate

Lane 3 : PC12 (Rat adrenal pheochromocytoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/10000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 102 kDa

Observed band size: 73 kDa

Additional bands at: 55 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 12 minutes

ab41037 appears to detect at 73kDa cleaved form of ADAMTS5.

The precursor of this secreted protein is cleaved at a furin cleavage site by a furin endopeptidase.

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