

Product datasheet

Anti-ADAM17 antibody ab2051

★★★★☆ 9 Abreviews 37 References 7 Images

Overview

Product name	Anti-ADAM17 antibody
Description	Rabbit polyclonal to ADAM17
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P, ICC/IF, Flow Cyt
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide corresponding to Human ADAM17 aa 807-823. Sequence: ASFKLQRQNRVDSKETE (Peptide available as ab7881) Run BLAST with Run BLAST with
Positive control	HeLa whole cell lysate, or Jurkat whole cell lysate. This antibody gave a positive result in IHC in the following FFPE tissue: Human pancreas adenocarcinoma.
General notes	TNFa Converting Enzyme.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Preservative: 0.02% Sodium azide
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab2051** in the following tested applications.

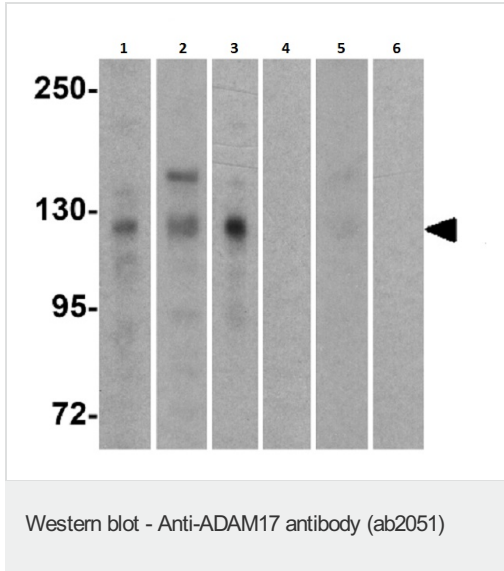
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★☆	1/500 - 1/1000. Predicted molecular weight: 93 kDa. Can be blocked with ADAM17 peptide (ab7881) . Detects bands of 80-130 kDa bands, which may represent mature protein, precursor, and glycosylated TACE.
IHC-P	★★★★☆	Use a concentration of 10 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF	★★★★☆	Use a concentration of 10 µg/ml.
Flow Cyt		Use at an assay dependent concentration. PubMed: 19553533 ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.

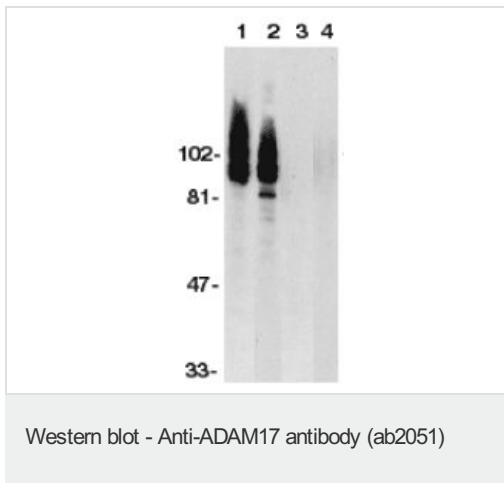
Target

Function	Cleaves the membrane-bound precursor of TNF-alpha to its mature soluble form. Responsible for the proteolytical release of soluble JAM3 from endothelial cells surface. Responsible for the proteolytic release of several other cell-surface proteins, including p75 TNF-receptor, interleukin 1 receptor type II, p55 TNF-receptor, transforming growth factor-alpha, L-selectin, growth hormone receptor, MUC1 and the amyloid precursor protein. Also involved in the activation of Notch pathway.
Tissue specificity	Ubiquitously expressed. Expressed at highest levels in adult heart, placenta, skeletal muscle, pancreas, spleen, thymus, prostate, testes, ovary and small intestine, and in fetal brain, lung, liver and kidney.
Sequence similarities	Contains 1 disintegrin domain. Contains 1 peptidase M12B domain.
Domain	Must be membrane anchored to cleave the different substrates. The cytoplasmic domain is not required for the this activity. Only the catalytic domain is essential to shed TNF and p75 TNFR. 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. Phosphorylated. Stimulation by growth factor or phorbol 12-myristate 13-acetate induces phosphorylation of Ser-819 but decreases phosphorylation of Ser-791.
Cellular localization	Membrane.

Images



Western Blot of HeLa (1, 4), Jurkat (2, 5) and Raji (3, 6) cell lysates labeling ADAM17 with Anti-ADAM17 antibody (ab2051) at 0.5µg/ml in the absence (1-3) or presence of blocking peptide (4-6).



All lanes : Anti-ADAM17 antibody (ab2051) at 1/500 dilution

Lane 1 : HeLa whole cell lysate with absence of blocking peptide

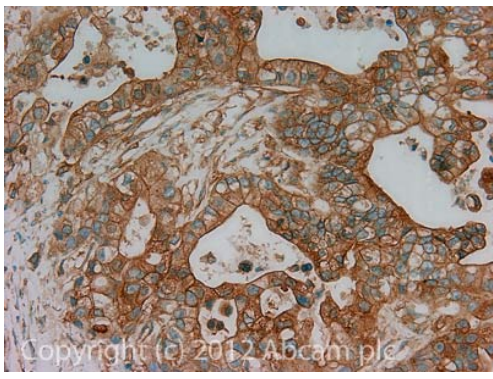
Lane 2 : Jurkat whole cell lysate with absence of blocking peptide

Lane 3 : HeLa whole cell lysate with ADAM17 peptide ([ab7881](#))

Lane 4 : Jurkat whole cell lysate with ADAM17 peptide ([ab7881](#))

Predicted band size: 93 kDa

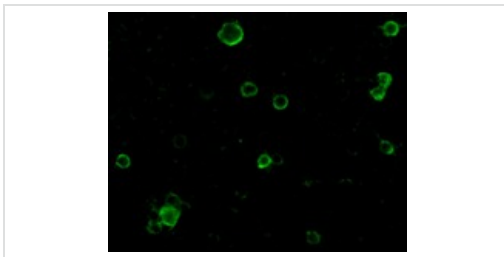
80 to 130 kDa bands can be detected, which may represent mature protein, precursor, and glycosylated ADAM17.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ADAM17 antibody (ab2051)

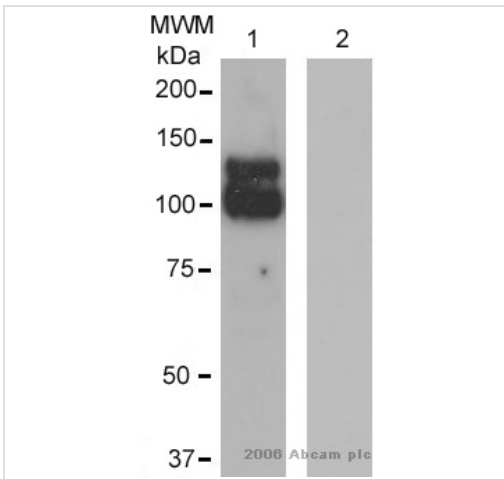
IHC image of ADAM17 staining in Human pancreas adenocarcinoma formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab2051, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Immunocytochemistry/ Immunofluorescence - Anti-ADAM17 antibody (ab2051)

Immunofluorescence of TACE in HeLa cells using ab2051 at 10 ug/ml.



Western blot - Anti-ADAM17 antibody (ab2051)
This image is courtesy of an anonymous Abreview

Lane 1 : Anti-ADAM17 antibody (ab2051) at 0.5 µg/ml

Lane 2 : Unrelated antibody of the same subclass as ab2051.

All lanes : Human keratinocytes (HaCaT)- whole cell lysate from 20000 cells

Secondary

All lanes : HRP conjugated goat polyclonal antibody

Developed using the ECL technique.

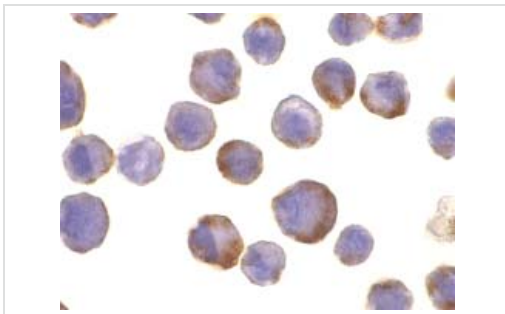
Performed under reducing conditions.

Predicted band size: 93 kDa

Observed band size: 100,125 kDa

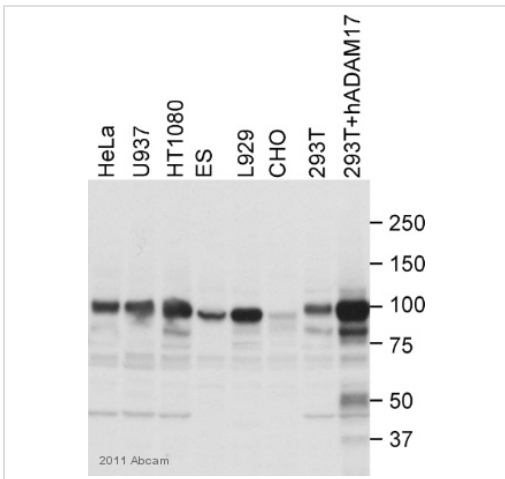
[why is the actual band size different from the predicted?](#)

Exposure time: 1 minute



Immunocytochemistry/ Immunofluorescence - Anti-ADAM17 antibody (ab2051)

ab2051 at 10µg/ml staining ADAM17 in HeLa cells by ICC/IF



Western blot - Anti-ADAM17 antibody (ab2051)
This image is courtesy of an anonymous Abreview.

All lanes : Anti-ADAM17 antibody (ab2051) at 1/1000 dilution

Lane 1 : HeLa cell lysate

Lane 2 : U937 cell lysate

Lane 3 : HT1080 cell lysate

Lane 4 : ES cell lysate

Lane 5 : L929 cell lysate

Lane 6 : CHO cell lysate

Lane 7 : 293T cell lysate

Lane 8 : ADAM17-overexpressing 293T cell lysate

Lysates/proteins at 50 µg per lane.

Secondary

All lanes : HRP-conjugated Goat anti-Rabbit polyclonal antibody at 1/4000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 93 kDa

Observed band size: 93 kDa

Additional bands at: 78 kDa (possible isoform)

Exposure time: 15 seconds

Please note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors