abcam

Product datasheet

Anti-ADAM17 antibody ab13535

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Overview

Product name	Anti-ADAM17 antibody
Description	Goat polyclonal to ADAM17
Host species	Goat
Specificity	This antibody is expected to recognise isoform 1 (represented by NP_003174) and not isoform 2 (represented by NP_068604).
Tested applications	**Suitable for:** WB
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse, Rat, Chinese hamster
Immunogen	Synthetic peptide: LQRQNRVDSKETEC, corresponding to C terminal amino acids 811-824 of Human ADAM17. Run BLAST with ExPASy Run BLAST with NCBI
General notes	GenBank Accession Number - NP_003174 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. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.30 Preservative: 0.02% Sodium azide Constituents: Tris buffered saline, 0.5% BSA
Purity	Immunogen affinity purified
Purification notes	Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.
Clonality	Polyclonal

Isotype	IgG

Applications

The Abpromise guarantee Our Abpromise guarantee covers the use of ab13535 in the following tested applications.

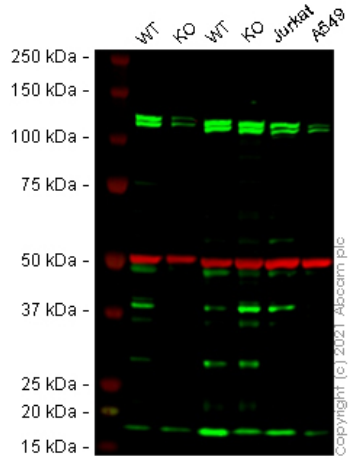
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ (2)	Use at an assay dependent concentration. Detects a band of approximately 125-130 kDa (predicted molecular weight: 95 , when glycosylated 130 kDa).Can be blocked with ADAM17 peptide (ab7881). 1 hour primary incubation is recommended for this product.

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 - Anti-ADAM17 antibody (ab13535)

All lanes : Anti-ADAM17 antibody (ab13535) at 0.3 µg/ml

Lane 1 : Wild-type HCT116 cell lysate
Lane 2 : ADAM17 knockout HCT116 cell lysate
Lane 3 : Wild-type HeLa cell lysate
Lane 4 : ADAM17 knockout HeLa cell lysate
Lane 5 : Jurkat cell lysate
Lane 6 : A549 cell lysate

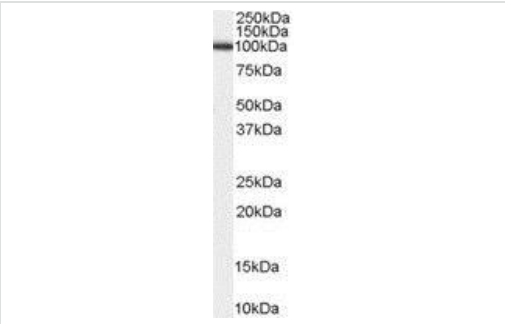
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 95 , when glycosylated 130 kDa
Observed band size: 120 kDa

Lanes 1 - 6: Merged signal (red and green). Green - ab13535 observed at 120 kDa. Red - loading control ab7291 (Mouse anti-Alpha Tubulin [DM1A]) observed at 55 kDa.

"Wild-type HCT116 and ADAM17 knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in fluorescent western blot (TBS-based) blocking solution before incubation with ab13535 and ab7291 (Mouse anti-Alpha Tubulin [DM1A]) overnight at 4 °C at 0.3 µg/ml and a 1 in 20000 dilution respectively. Blots were incubated with Donkey anti-Goat IgG H&L (IRDye® 800CW) preabsorbed (ab216775) and Donkey anti-Mouse 680RD secondary antibodies at 1 in 20000 dilution for 1 h at room temperature before imaging.



Western blot - Anti-ADAM17 antibody (ab13535)

Anti-ADAM17 antibody (ab13535) at 0.2 µg/ml + Hela lysate (RIPA buffer, 35µg total protein per lane)

Predicted band size: 95 , when glycosylated 130 kDa
Observed band size: 100 kDa

Primary incubated for 1 hour. Detected by western blot using chemiluminescence.

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