abcam

ab33915

Anti-TRAF6 antibody [EP591Y]

Anti-TRAF6 antibody [EP591Y] (ab33915) is a rabbit monoclonal antibody detecting TRAF6 in **Western Blot, Flow Cytometry (Intra), IHC-P**. Suitable for **Human, Mouse, Rat**.

- KO validated for confirmed specificity
- Biophysical QC for unrivalled batch-batch consistency
- Over 150 publications
- Trusted since 2006

Recombinant | RabMAb | KO Validated | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 50% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EP591Y
Purification technique	Affinity purification Protein A
Specificity	This antibody is unsuitable for detecting TRAF6 in tissue lysates.
Concentration	0.441 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Zebrafish
Dilution info	-
Notes	-

IP

Not recommended

Species	Mouse, Rat, Human, Zebrafish
Dilution info	-
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/2000 - 1/10000
Notes	-

Species	Rat
Dilution info	1/2000 - 1/10000

Notes	-

Species	Human
Dilution info	1/2000 - 1/10000
Notes	-

Predicted

Species	Zebrafish
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/50
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Zebrafish
Dilution info	-
Notes	-

Target data

See full target information TRAF6

Function	E3 ubiquitin ligase that, together with UBE2N and UBE2V1, mediates the synthesis of 'Lys-63'-linked-polyubiquitin chains conjugated to proteins, such as ECSIT, IKBKG, IRAK1, AKT1 and AKT2 (PubMed:11057907, PubMed:18347055, PubMed:19465916, PubMed:19713527, PubMed:27746020, PubMed:31620128). Also mediates ubiquitination of free/unanchored polyubiquitin chain that leads to MAP3K7 activation (PubMed:19675569). Leads to the activation of NF-kappa-B and JUN (PubMed:16378096, PubMed:17135271, PubMed:17703191). Seems to also play a role in dendritic cells (DCs) maturation and/or activation (By similarity). Represses c-Myb-mediated transactivation, in B-lymphocytes (PubMed:18093978, PubMed:18758450). Adapter protein that seems to play a role in signal transduction initiated via TNF receptor, IL-1 receptor and IL-17 receptor (PubMed:12140561, PubMed:19825828, PubMed:8837778). Regulates osteoclast differentiation by mediating the activation of adapter protein complex 1 (AP-1) and NF-kappa-B, in response to RANK-L stimulation (By similarity). Together with MAP3K8, mediates CD40 signals that activate ERK in B-cells and macrophages, and thus may play a role in the regulation of immunoglobulin production (By similarity). Acts as a regulator of the JNK and NF-kappa-B signaling pathways by initiating assembly of heterotypic 'Lys-63'-/'Lys-48'-linked branched ubiquitin chains that are then recognized by TAB2: TRAF6 catalyzes initial 'Lys-63'-linked-polyubiquitin chains that are then branched via 'Lys-48'-linked polyubiquitin by HUWE1 (PubMed:27746020). 'Lys-63'-/'Lys-48'-linked branched ubiquitin chains protect 'Lys-63'-linkages from CYLD deubiquitination (PubMed:27746020). Participates also in the TCR signaling by ubiquitinating LAT (PubMed:23514740, PubMed:25907557).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-TRAF6 antibody [EP591Y] (ab33915) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunohistochemistry (IHC-P) in Human, Mouse, Rat samples.

What is the molecular weight of TRAF6?

Anti-TRAF6 [EP591Y] (ab33915) specifically detects a band for TRAF6 (UniProt: Q9Y4K3) at a molecular weight of 58kDa.

Trusted by the scientific community
Anti-TRAF6 [EP591Y] (ab33915) was first used in a scientific publication in 2006 and has been cited over 150 times in peer-reviewed journals.

Reviewed by scientists
Anti-TRAF6 [EP591Y] (ab33915) has over 5 independent reviews from customers.

Specificity confirmed
The specificity of Anti-TRAF6 antibody [EP591Y] (ab33915) has been confirmed by Western blot testing in TRAF6 Knockout HAP1 cells.

Other related products
We have a range of other formats of antibody clone [EP591Y] also available for your convenience: ab33915, PE - ab210412, Alexa Fluor® 488 - ab214638, Alexa Fluor® 647 - ab214941, Carrier free - ab218575, APC - ab310859, Alexa Fluor® 594 - ab311723, Alexa Fluor® 568 - ab313000, Alexa Fluor® 750 - ab321614

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.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

Supplementary info

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

Activity summary	TRAF6 also known as TNF receptor-associated factor 6 is an E3 ubiquitin ligase that is part of the TRAF family. It has a molecular mass of approximately 60 kDa. TRAF6 is ubiquitously expressed in many types of tissues and cells including immune cells like macrophages and dendritic cells. Its primary role is to mediate signal transduction from members of the TNF receptor and Toll-like receptor (TLR) families which it achieves through polyubiquitination of target proteins. This process facilitates the recruitment of downstream signaling components necessary for cellular responses.

Biological function summary	TRAF6 plays a critical role in regulating immune and inflammatory responses. It acts within a complex often associating with other signaling proteins such as IRAK1 and TAK1 to activate downstream kinases like IKK and JNK. These signaling pathways lead to the activation of transcription factors such as NF-kB and AP-1 which regulate the expression of genes involved in inflammation and immune responses. TRAF6 is an important modulator of adaptive and innate immunity influencing both the maturation of immune cells and the body's response to infection.
Pathways	TRAF6 significantly contributes to the NF-kB and MAPK signaling pathways. In the NF-kB pathway TRAF6 mediates signal transduction following TLR engagement interacting with proteins such as MyD88 and RIP1 to drive inflammatory cytokine production. In the MAPK pathway it associates predominantly with TAK1 to facilitate the phosphorylation and activation of downstream kinases. These pathways are essential for transmitting signals from cell surface receptors to the nucleus controlling the magnitude of immune signaling and cellular stress responses.
Associated diseases and disorders	TRAF6 has a significant association with autoimmune diseases and certain cancers. In autoimmune disorders aberrant activation of TRAF6 can lead to prolonged inflammation and detrimental immune responses. For cancers TRAF6 is linked to tumor progression and metastasis acting alongside proteins like IRAK1 and RIP1 which can further promote malignancy through chronic inflammation and immune evasion. Understanding TRAF6's role in these diseases provides insights that could lead to targeted therapeutic strategies.

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

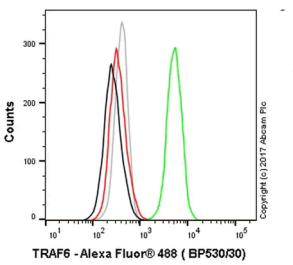
We do not recommend this combination. It is not covered by our product promise.

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.

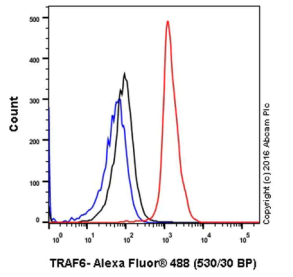
9 product images



Flow Cytometry (Intracellular) - Anti-TRAF6 antibody [EP591Y] (ab33915)

TRAF6 Flow Cytometry (Intracellular) staining using rabbit Anti-TRAF6 antibody

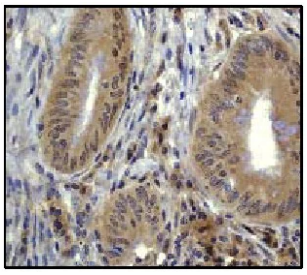
Overlay histogram showing HAP1 wildtype (green line) and HAP1-TRAF6 knockout cells (red line) stained with ab33915. The cells were fixed with 4% formaldehyde (10 min) and then permeabilized with 0.1% PBS-Triton X-100 for 15 min. The cells were then incubated in 1x PBS / 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (ab33915, 0.1µg/ml) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H&L) preadsorbed (ab150081) at 1/2000 dilution for 30 min at 22°C. A rabbit IgG isotype control antibody (ab172730) was used at the same concentration and conditions as the primary antibody (HAP1 wildtype - black line, HAP1-TRAF6 knockout - grey line). Unlabelled sample was also used as a control (this line is not shown for the purpose of simplicity). Acquisition of >5,000 events were collected using a 50 mW Blue laser (488nm) and 530/30 bandpass filter.



Flow Cytometry (Intracellular) - Anti-TRAF6 antibody [EP591Y] (ab33915)

TRAF6 Flow Cytometry (Intracellular) staining using rabbit Anti-TRAF6 antibody

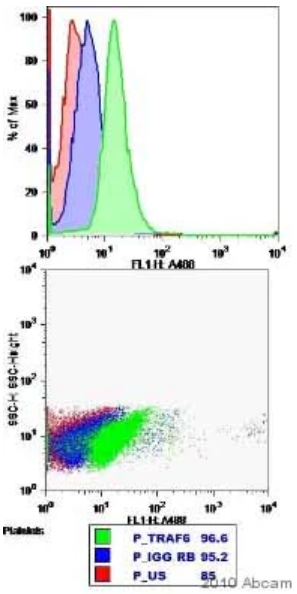
Intracellular Flow Cytometry analysis of Jurkat (human acute T cell leukemia) cells labeling TRAF6 with purified ab33915 at 1/240 dilution (10ug/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488) (1/2000 dilution) was used as the secondary antibody. Rabbit monoclonal IgG (Black) was used as the isotype control, cells without incubation with primary antibody and secondary antibody (Blue) was used as the unlabeled control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TRAF6 antibody [EP591Y] (ab33915)

TRAF6 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-TRAF6 antibody

Immunohistochemical analysis of paraffin-embedded human colon adenocarcinoma using anti-TRAF6 (ab33915)
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

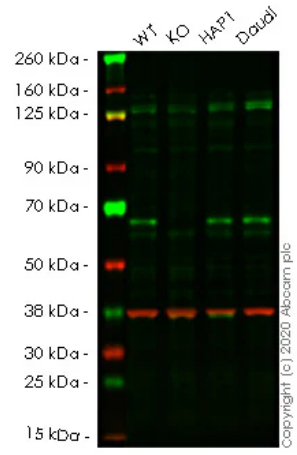


This image is courtesy of an anonymous customer review.

Flow Cytometry (Intracellular) - Anti-TRAF6 antibody [EP591Y] (ab33915)

TRAF6 Flow Cytometry (Intracellular) staining using rabbit Anti-TRAF6 antibody

ab33915 staining TRAF6 in Human platelet cells by intracellular flow cytometry.Cells were fixed in paraformaldehyde and permeabilized using 0.1% Triton-X-100 in 2% BSA for 15 minutes. Primary antibody used at a 1/200 dilution and incubated for 16 hours at 4°C. The secondary antibody used was an Alexa Fluor®488 conjugated chicken anti-rabbit IgG (H+L) at a 1/500 dilution.
P : permeabilized US : Unstained (Red Peak) IGG RB : IgG Rabbit (Blue Peak) TRAF6 Ab (Green Peak)



Western blot - Anti-TRAF6 antibody [EP591Y] (ab33915)

TRAF6 Western blot staining using rabbit Anti-TRAF6 antibody

Lanes 1- 4: Merged signal (red and green). Green - ab33915 observed at 65 kDa. Red - Anti-GAPDH antibody [6C5] - Loading Control (ab8245) observed at 37 kDa.
ab33915 was shown to react with TRAF6 in wild-type HeLa cells in western blot. Loss of signal was observed when knockout cell line ab266009 (knockout cell lysate ab257760) was used. Wild-type HeLa and TRAF6 knockout HeLa cell lysates were subjected to SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. ab33915 and Anti-GAPDH antibody [6C5] - Loading Control (ab8245) overnight at 4°C at a 1 in 2000 dilution and a 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye®800CW) preadsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye®680RD) preadsorbed (ab216776) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-TRAF6 antibody [EP591Y] (ab33915) at 1/2000 dilution

Lane 1:
Wild-type HeLa cell lysate at 20 µg

Lane 2:
Western blot - Human TRAF6 knockout HeLa cell lysate (ab257760) at 20 µg

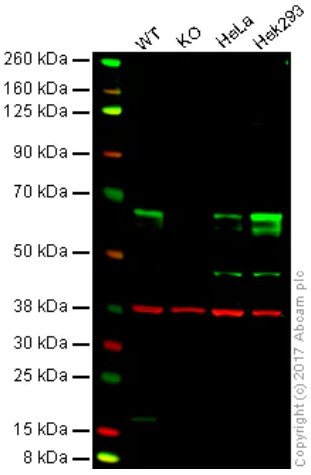
Lane 3:
HAP1 cell lysate at 20 µg

Lane 4:
Daudi cell lysate at 20 µg

Performed under reducing conditions.

Predicted band size: 60 kDa

Observed band size: 65 kDa



Western blot - Anti-TRAF6 antibody [EP591Y] (ab33915)

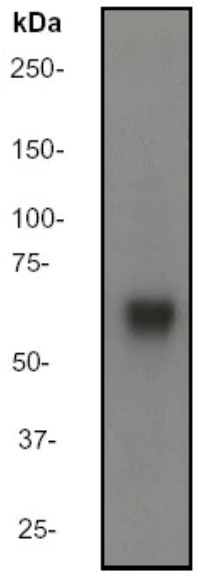
TRAF6 Western blot staining using rabbit Anti-TRAF6 antibody

Lane 1: Wild type HAP1 whole cell lysate (20 µg)
Lane 2: TRAF6 knockout HAP1 whole cell lysate (20 µg)
Lane 3: HeLa whole cell lysate (20 µg)
Lane 4: HEK293 whole cell lysate (20 µg)
Lanes 1 - 4: Merged signal (red and green). Green - ab33915 observed at 65 kDa. Red - loading control, ab8245, observed at 37 kDa.

ab33915 was shown to specifically react with TRAF6 in wild-type cells as signal was lost in TRAF6 knockout HAP1 cells. Wild-type and TRAF6 knockout samples were subjected to SDS-PAGE. ab33915 and ab8245 (Mouse anti GAPDH loading control) were incubated overnight at 4°C at 2000 dilution and 1/10000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ab216776 secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging

All lanes:
Western blot - Anti-TRAF6 antibody [EP591Y] (ab33915)

Predicted band size: 60 kDa

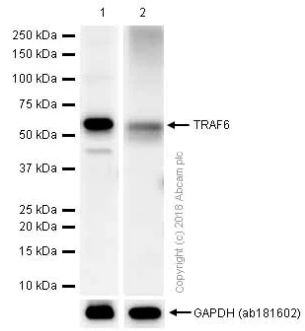


Western blot - Anti-TRAF6 antibody [EP591Y] (ab33915)

All lanes:
Western blot - Anti-TRAF6 antibody [EP591Y] (ab33915) at 1/10000 dilution

All lanes:
Jurkat cell lysate

Predicted band size: 60 kDa



Western blot - Anti-TRAF6 antibody [EP591Y] (ab33915)

All lanes:
Western blot - Anti-TRAF6 antibody [EP591Y] (ab33915) at 1/1000 dilution

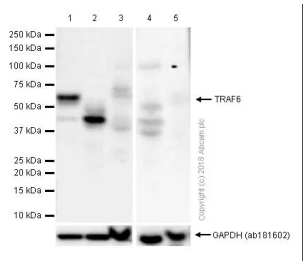
Lane 1:
Raw264.7 (Mouse Abelson murine leukemia virus-induced tumor macrophage) whole cell lysates at 15 µg

Lane 2:
PC-12 (Rat adrenal gland pheochromocytoma) whole cell lysates at 15 µg

Secondary

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

Predicted band size: 60 kDa



Western blot - Anti-TRAF6 antibody [EP591Y] (ab33915)

All lanes:
Western blot - Anti-TRAF6 antibody [EP591Y] (ab33915) at 1/1000 dilution

Lane 1:
HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates at 15 µg

Lane 2:
Human heart lysates at 15 µg

Lane 3:
Human skeletal muscle lysates at 15 µg

Lane 4:
Mouse skeletal muscle lysates at 15 µg

Lane 5:
Rat skeletal muscle lysates at 15 µg

Secondary

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

Predicted band size: 60 kDa

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