abcam

ab167154

Anti-TRIM25/EFP antibody [EPR7315]

Anti-TRIM25/EFP antibody [EPR7315] (ab167154) is a rabbit monoclonal antibody detecting TRIM25/EFP in **Western Blot, Flow Cytometry (Intra), IP, IHC-P, ICC/IF**. Suitable for **Human, Mouse, Rat**.

- KO validated for confirmed specificity
- Biophysical QC for unrivalled batch-batch consistency
- Over 30 publications

Recombinant | RabMAb | KO Validated | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Preservative: 0.01% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR7315
Purification technique	Affinity purification Protein A
Concentration	0.861 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/40 - 1/100
Notes	-

Expected

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

WB

Tested

Species	Mouse
Dilution info	1/2000 - 1/50000
Notes	-

Species	Rat
Dilution info	1/2000 - 1/50000
Notes	-

Species	Human
Dilution info	1/2000 - 1/50000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/500 - 1/1000
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/60 - 1/90
Notes	-

Expected

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

IHC-P

Tested

Species	Human
Dilution info	1/100 - 1/250
Notes	-

Expected

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

Target data

See full target information TRIM25

Function	Functions as a ubiquitin E3 ligase and as an ISG15 E3 ligase (PubMed:16352599). Involved in innate immune defense against viruses by mediating ubiquitination of RIGI and IFIH1 (PubMed:17392790, PubMed:29357390, PubMed:30193849, PubMed:31710640, PubMed:33849980, PubMed:36045682). Mediates 'Lys-63'-linked polyubiquitination of the RIGI N-terminal CARD-like region and may play a role in signal transduction that leads to the production of interferons in response to viral infection (PubMed:17392790, PubMed:23950712). Mediates 'Lys-63'-linked polyubiquitination of IFIH1 (PubMed:30193849). Promotes ISGylation of 14-3-3 sigma (SFN), an adapter protein implicated in the regulation of a large spectrum signaling pathway (PubMed:16352599, PubMed:17069755). Mediates estrogen action in various target organs (PubMed:22452784). Mediates the ubiquitination and subsequent proteasomal degradation of ZFHX3 (PubMed:22452784). Plays a role in promoting the restart of stalled replication forks via interaction with the KHDC3L-OOEP scaffold and subsequent ubiquitination of BLM, resulting in the recruitment and retainment of BLM at DNA replication forks (By similarity). Plays an essential role in the antiviral activity of ZAP/ZC3HAV1; an antiviral protein which inhibits the replication of certain viruses. Mechanistically, mediates 'Lys-63'-linked polyubiquitination of ZAP/ZC3HAV1 that is required for its optimal binding to target mRNA (PubMed:28060952, PubMed:28202764). Also mediates the ubiquitination of various substrates implicated in stress granule formation, nonsense-mediated mRNA decay, nucleoside synthesis and mRNA translation and stability (PubMed:36067236).

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	Stable for 12 months at -20°C

Notes

What is this antibody validated in?
Anti-TRIM25/EFP antibody [EPR7315] (ab167154) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunoprecipitation (IP), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Human, Mouse, Rat samples.

What is the molecular weight of TRIM25/EFP?
Anti-TRIM25/EFP [EPR7315] (ab167154) specifically detects a band for TRIM25/EFP (UniProt: Q14258) at a molecular

weight of 71kDa.

Trusted by the scientific community
Anti-TRIM25/EFP [EPR7315] (ab167154) was first used in a scientific publication in 2013 and has been cited over 30 times in peer-reviewed journals.

Specificity confirmed
The specificity of Anti-TRIM25/EFP antibody [EPR7315] (ab167154) has been confirmed by Western blot testing in TRIM25 Knockout HAP1 cells.

Other related products
We have a range of other formats of antibody clone [EPR7315] also available for your convenience: ab167154, Alexa Fluor® 488 - ab200781, HRP - ab200788, Carrier free - ab232356

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	TRIM25 also known as EFP is a protein involved in antiviral response mechanisms. TRIM25 has a molecular mass of approximately 70 kDa and is part of the TRIM (Tripartite Motif) family which contains three distinct zinc-binding domains followed by a coiled-coil region. This protein exhibits strong expression in a variety of tissues including lung liver and intestines. As a member of the E3 ubiquitin ligase enzyme family TRIM25 plays a direct role in protein ubiquitination which tags specific proteins for degradation by the proteasome.
Biological function summary	TRIM25 functions as a significant modulator of the innate immune response against viral infections. In cells it acts within the RIG-I signaling complex directly promoting the RIG-I-MAVS pathway that detects viral RNA. TRIM25 mediates the ubiquitination of RIG-I allowing for its proper activation and subsequent signal transduction facilitating a robust antiviral state. TRIM25's role extends beyond antiviral defenses to include regulatory functions in cell proliferation and differentiation.

Pathways	TRIM25 engages actively in the innate immune signaling and JAK-STAT pathways. It interacts and cooperates with RIG-I in the recognition and response to viral tRNA leading to the production of interferons that establish an antiviral environment. Furthermore TRIM25 also connects with proteins like TRIM21 which further engages the immune response. This interaction enhances the overall ability of cells to fend off viral pathogens efficiently.
Associated diseases and disorders	Altered TRIM25 function is associated with conditions like systemic lupus erythematosus (SLE) and various cancers. In the context of SLE TRIM25's regulatory role in innate immunity can affect the severity and progression of this autoimmune disorder. Additionally in some cancers abnormal TRIM25 expression can influence cell cycle regulation and metastasis. Through its ubiquitination activities TRIM25 interacts directly with proteins such as p53 affecting tumor suppression pathways and contributing to the complexity of disease development and progression.

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

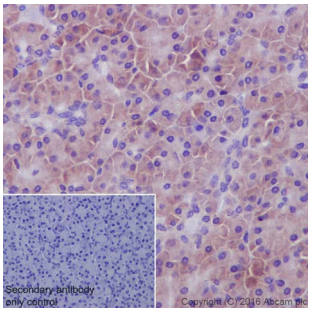
We do not recommend this combination. It is not covered by our product promise.

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.

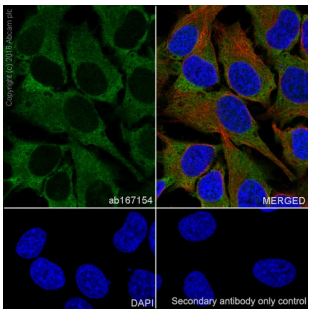
12 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TRIM25/EFP antibody [EPR7315] (ab167154)

TRIM25/EFP Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-TRIM25/EFP antibody

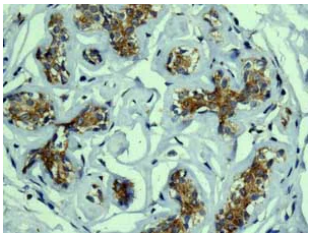
ab167154 staining TRIM25/EFP in human pancreas tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with paraformaldehyde and antigen retrieval was by heat mediation in a EDTA buffer. Samples were incubated with primary antibody at a dilution of 1/100. A goat anti-rabbit IgG H&L (HRP) ab97051 was used as the secondary antibody at a dilution of 1/500.



Immunocytochemistry/ Immunofluorescence - Anti-TRIM25/EFP antibody [EPR7315] (ab167154)

TRIM25/EFP Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-TRIM25/EFP antibody

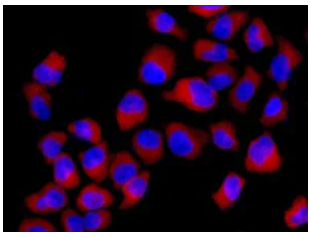
ab167154 staining TRIM25/EFP in HeLa (human cervix adenocarcinoma) cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with 4% Paraformaldehyde and permeabilized with 0.1% Triton X-100. Samples were incubated with primary antibody at a dilution of 1/500. A goat anti rabbit IgG (Alexa Fluor® 488) (ab150077) was used as the secondary antibody at a dilution of 1/1000. ab195889 was used as a tubulin counterstain at a dilution of 1/200 and DAPI was used as a nuclear counterstain.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TRIM25/EFP antibody [EPR7315] (ab167154)

TRIM25/EFP Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-TRIM25/EFP antibody

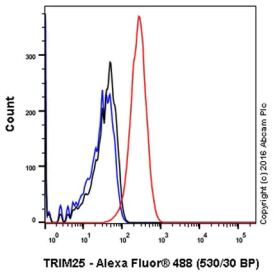
Immunohistochemical analysis of paraffin-embedded Human breast tissue labeling TRIM25/EFP with ab167154 at 1/100 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-TRIM25/EFP antibody [EPR7315] (ab167154)

TRIM25/EFP Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-TRIM25/EFP antibody

Immunofluorescent analysis of HeLa cells labeling TRIM25/EFP with ab167154 at 1/100 dilution.

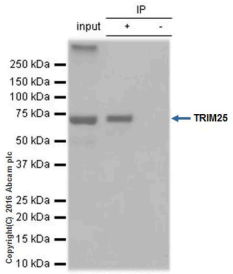


Flow Cytometry (Intracellular) - Anti-TRIM25/EFP antibody [EPR7315] (ab167154)

TRIM25/EFP Flow Cytometry (Intracellular) staining using rabbit Anti-TRIM25/EFP antibody

Intracellular Flow Cytometry analysis of HeLa (human cervix adenocarcinoma) cells labeling TRIM25/EFP with purified ab167154 at 1/90 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) were used as the unlabeled control.



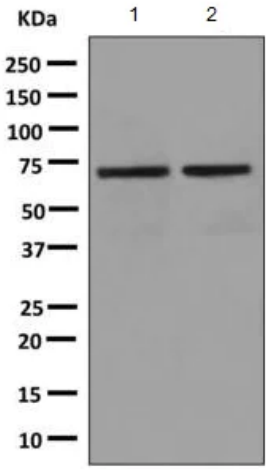
Immunoprecipitation - Anti-TRIM25/EFP antibody [EPR7315] (ab167154)

ab167154 immunoprecipitating TRIM25/EFP. 10µg of cell lysate was incubated with primary antibody at a dilution of 1/40 and VeriBlot for IP Detection Reagent (HRP) (ab131366) at a dilution of 1/1000.
Lane 1: HeLa (human cervix adenocarcinoma) whole cell lysate (10ug)
Lane 2: HeLa (human cervix adenocarcinoma) whole cell lysate
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab167154 in HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate.

All lanes:
Immunoprecipitation - Anti-TRIM25/EFP antibody [EPR7315] (ab167154)

Predicted band size: 71 kDa

Observed band size: 71 kDa



Western blot - Anti-TRIM25/EFP antibody [EPR7315] (ab167154)

All lanes:
Western blot - Anti-TRIM25/EFP antibody [EPR7315] (ab167154) at 1/10000 dilution

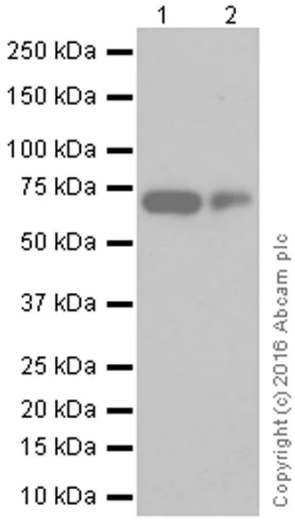
Lane 1:
HeLa cell lysate at 10 µg

Lane 2:
K562 cell lysate at 10 µg

Secondary

All lanes:
HRP labeled goat anti-rabbit at 1/2000 dilution

Predicted band size: 71 kDa



Western blot - Anti-TRIM25/EFP antibody [EPR7315] (ab167154)

TRIM25/EFP Western blot staining using rabbit Anti-TRIM25/EFP antibody

Blocking and diluting buffer: 5% NFDM/TBST
All lanes:
Western blot - Anti-TRIM25/EFP antibody [EPR7315] (ab167154) at 1/50000 dilution

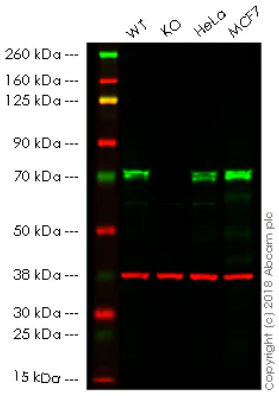
Lane 1:
HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 20 µg

Lane 2:
K562 (Human chronic myelogenous leukemia cell line from bone marrow) whole cell lysate at 20 µg

Secondary

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

Predicted band size: 71 kDa



Western blot - Anti-TRIM25/EFP antibody [EPR7315] (ab167154)

TRIM25/EFP Western blot staining using rabbit Anti-TRIM25/EFP antibody

Lanes 1 - 4: Merged signal (red and green). Green - ab167154 observed at 71 kDa. Red - loading control, ab9484, observed at 37 kDa.

ab167154 was shown to specifically react with TRIM25/EFP in wild-type HAP1 cells as signal was lost in TRIM25/EFP knockout cells. Wild-type and TRIM25/EFP knockout samples were subjected to SDS-PAGE. ab167154 and ab9484 (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/10000 dilution and 1/20000 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 1/20000 dilution for 1 hour at room temperature before imaging.
All lanes:
Western blot - Anti-TRIM25/EFP antibody [EPR7315] (ab167154) at 1/10000 dilution

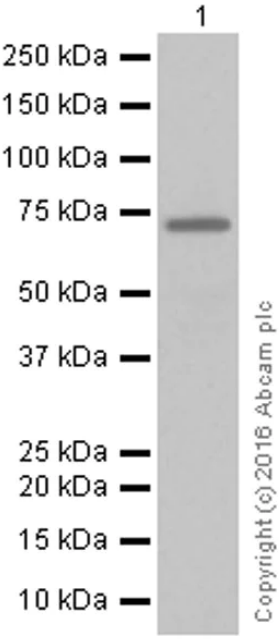
Lane 1:
Wild-type HAP1 whole cell lysate at 20 µg

Lane 2:
TRIM25/EFP knockout HAP1 whole cell lysate at 20 µg

Lane 3:
HeLa whole cell lysate at 20 µg

Lane 4:
MCF7 whole cell lysate at 20 µg

Predicted band size: 71 kDa



Western blot - Anti-TRIM25/EFP antibody [EPR7315] (ab167154)

TRIM25/EFP Western blot staining of Rat brain lysate using rabbit Anti-TRIM25/EFP antibody

Blocking and diluting buffer: 5% NFDM/TBST
All lanes:
Western blot - Anti-TRIM25/EFP antibody [EPR7315] (ab167154) at 1/10000 dilution

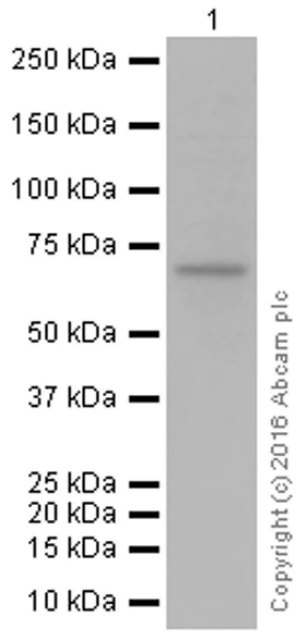
All lanes:
Rat brain lysate at 15 µg

Secondary

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

Predicted band size: 71 kDa

Observed band size: 71 kDa



Western blot - Anti-TRIM25/EFP antibody [EPR7315] (ab167154)

TRIM25/EFP Western blot staining of SP2/0 (mouse spleen) whole cell lysate using rabbit Anti-TRIM25/EFP antibody

Blocking and diluting buffer: 5% NFDM /TBST
All lanes:
Western blot - Anti-TRIM25/EFP antibody [EPR7315] (ab167154) at 1/2000 dilution

All lanes:
SP2/0 (mouse spleen) whole cell lysate at 15 µg

Secondary

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

Predicted band size: 71 kDa

Observed band size: 71 kDa

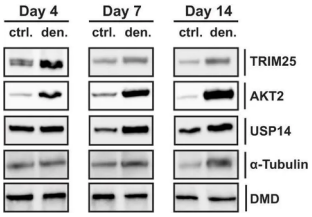


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Western blot - Anti-TRIM25/EFP antibody [EPR7315] (ab167154)

TRIM25/EFP western blot using anti-TRIM25/EFP antibody [EPR7315] ab167154. Publication image and figure legend from Lang, F., Aravamudhan, S., et al., 2017, Dis Model Mech, PubMed 28546288.

ab167154 was used in this publication in western blot. This may not be the same as the application(s) guaranteed by Abcam. For a full list of applications guaranteed by Abcam for ab167154 please see the product overview.

Selected proteins associated with proteolysis and time-dependent protein changes in sarcomeric proteins. (A-E) Bar diagrams showing protein ratios of selected E2-ubiqutin conjugation enzymes (A), E3-ubiquitin ligases (B), tripartite motif family (MURFs; C), deubiquitinating enzymes (D) and autophagy marker proteins (E) during the time course after denervation. (F) Schematic representation of the sarcomere; proteins labelled blue are upregulated and proteins labelled red are downregulated. (G-J) Protein expression time profiles of selected differentially expressed myofibrillar proteins. Log2 SILAC ratios were plotted against time [from day 1 to 14 after denervation (t1=day 1; t2=day 4; t3=day 7; t4=day 14)]. (K) Immunoblot of lysates from control and denervated GAST using antibodies for TRIM25, AKT2, USP14 and tubulin. Dystrophin was used as a loading control. *Significant regulation (FDR cut-off=0.05). **Direct heavy/light SILAC ratio detected only in denervated muscle.

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