abcam

ab250916

Anti-USP25 antibody [EPR15019] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR15019
Concentration	1.012 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

Target data

See full target information USP25

Function

Deubiquitinating enzyme that hydrolyzes ubiquitin moieties conjugated to substrates and thus, functions in various biological processes including inflammation and immune response (PubMed:29518389, PubMed:37683630). Modulates the Wnt/beta-catenin pathway by deubiquitinating and stabilizing tankyrases TNKS1 and TNKS2 (PubMed:28619731, PubMed:30926243, PubMed:38875478). Regulates KEAP1-NRF2 axis in the defense against oxidative assaults by deubiquitinating KEAP1 and protecting it from degradation leading to degradation of the NRF2 transcription factor that is responsible for mounting an anti-oxidation gene expression program (PubMed:37339955). Positively regulates RNA virus-induced innate signaling by interacting with and deubiquitinating ERLIN1 and ERLIN2 (PubMed:37683630). In turn, restricts virus production by regulating cholesterol biosynthetic flux (PubMed:37683630). Acts as a negative regulator of interleukin-17-mediated signaling and inflammation through the removal of 'Lys-63'-linked ubiquitination of TRAF5 and TRAF6 (PubMed:23042150). Prevents the ubiquitination and degradation of TRAF3 to reduce the phosphorylation levels of JNK and P38, the secretion of IL-1B and to induce endotoxin tolerance (PubMed:30579117). The muscle-specific isoform (USP25m) may have a role in the regulation of muscular differentiation and function.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C

Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab250916 is the carrier-free version of ab187156.

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.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility

This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

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

Activity summary	USP25 also known as Ubiquitin Specific Peptidase 25 is a deubiquitinating enzyme that removes ubiquitin moieties from polyubiquitinated proteins. It has a molecular mass of approximately 120 kDa. This protein is expressed in various tissues with notable expression in the brain kidney and thymus. USP25 plays an essential role in regulating the balance between protein ubiquitination and deubiquitination which is critical for maintaining cellular protein homeostasis.
Biological function summary	USP25 contributes to the modulation of several key proteins by rescuing them from proteasomal degradation through deubiquitination. This protein is involved in multiple cellular processes such as signal transduction and the immune response. USP25 is part of the endoplasmic reticulum-associated degradation (ERAD) complex where it functions to recycle ubiquitin molecules from substrates

	destined for degradation. By doing so USP25 influences the stability and localization of various proteins impacting cell growth and survival.
Pathways	USP25 is involved in the ubiquitin-proteasome system (UPS) and the Wnt signaling pathway. In the UPS USP25 interacts with proteins like LRP6 helping regulate the amount of ß-catenin thereby influencing Wnt signaling activity. This interaction plays a role in controlling cell proliferation and differentiation. USP25 also associates with other deubiquitinating enzymes reflecting its role in multiple regulatory pathways essential for cellular function.
Associated diseases and disorders	Research links USP25 to inflammatory diseases and certain cancers. Its role in cancer is as a regulator of tumor-suppressor proteins and oncogenes such as those involving p53 pathways. Inflammatory conditions like rheumatoid arthritis show altered USP25 expression patterns where it interacts with proteins like TNF-alpha receptor-associated factors (TRAFs) impacting inflammatory signaling cascades. Studies continue to explore USP25's potential as a therapeutic target in these disorders.

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

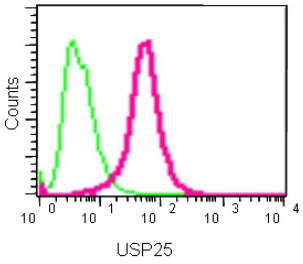
We do not recommend this combination. It is not covered by our product promise.

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.

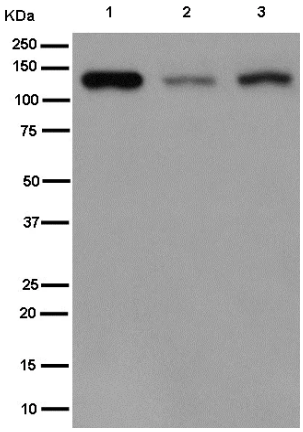
3 product images



Flow Cytometry (Intracellular) - Anti-USP25 antibody [EPR15019] - BSA and Azide free (ab250916)

USP25 Flow Cytometry (Intracellular) staining using rabbit Anti-USP25 antibody

This data was developed using ab187156, the same antibody clone in a different buffer formulation.
Intracellular Flow Cytometry analysis of USP25 expression in 2% paraformaldehyde-fixed A673 cells using ab187156 at 1/60 dilution (red) and a rabbit IgG as negative control (green). A FITC-conjugated goat anti-rabbit IgG (1/200) was used as the secondary antibody.



Western blot - Anti-USP25 antibody [EPR15019] - BSA and Azide free (ab250916)

This data was developed using ab187156, the same antibody clone in a different buffer formulation.
Blocking and dilution buffer: 5% NFDM/TBST.

All lanes:
Western blot - Anti-USP25 antibody [EPR15019] (ab187156) at 1/10000 dilution

Lane 1:
293 cell lysate at 20 µg

Lane 2:
A673 cell lysate at 20 µg

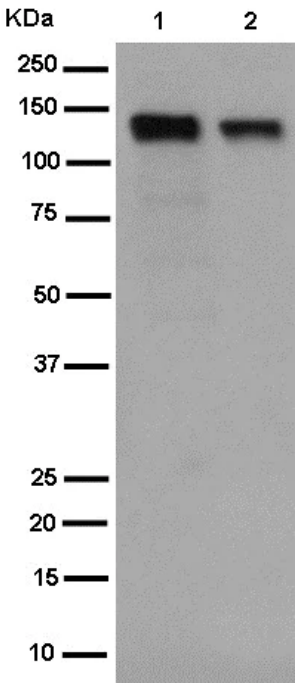
Lane 3:
BxPC-3 cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 122 kDa

Observed band size: 122 kDa



Western blot - Anti-USP25 antibody [EPR15019] - BSA and Azide free (ab250916)

This data was developed using ab187156, the same antibody clone in a different buffer formulation.
Blocking and dilution buffer: 5% NFDM/TBST.

All lanes:
Western blot - Anti-USP25 antibody [EPR15019] (ab187156) at 1/1000 dilution

Lane 1:
Raw264.7 cell lysate at 10 µg

Lane 2:
PC-12 cell lysate at 10 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 122 kDa

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