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USP25 Antibody (N-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2150a

Specification

USP25 Antibody (N-term) - Product Information

Application	**WB,E**
Primary Accession	Q9UHP3
Other Accession	NP_037528
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**122218**
Antigen Region	**133-163**

USP25 Antibody (N-term) - Additional Information

Gene ID 29761

Other Names
Ubiquitin carboxyl-terminal hydrolase 25, Deubiquitinating enzyme 25, USP on chromosome 21, Ubiquitin thioesterase 25, Ubiquitin-specific-processing protease 25, USP25, USP21

Target/Specificity
This USP25 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 133-163 amino acids from the N-terminal region of human USP25.

Dilution
WB~~1:1000

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
USP25 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

USP25 Antibody (N-term) - Protein Information

Name USP25

Synonyms USP21

Function Deubiquitinating enzyme that hydrolyzes ubiquitin moieties conjugated to substrates and thus, functions in various biological processes including inflammation, immune response (PubMed:29518389, PubMed:37683630). Modulates the Wnt/beta-catenin pathway by deubiquitinating and stabilizing tankyrases TNKS1 and TNKS2 (PubMed:28619731, PubMed:30926243). 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).

Cellular Location
Cytoplasm

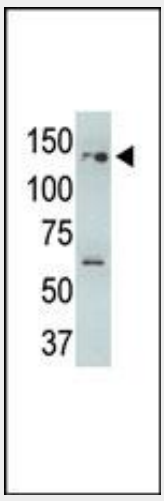
Tissue Location
Isoform USP25a is found in most adult and fetal tissues; expression is moderately high in testis, pancreas, kidney, skeletal muscle, liver, lung, placenta, brain, heart, but very low in peripheral blood, colon, small intestine, ovary, prostate, thymus and spleen. Isoform USP25b is found in all tissues except heart and skeletal muscle. Isoform USP25m is heart and skeletal muscle specific

USP25 Antibody (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

USP25 Antibody (N-term) - Images



The anti-USP25 N-term Pab (Cat. #AP2150a) is used in Western blot to detect USP25 in USP25-transfected HeLa cell lysates. Transfection data is kindly provided by Dr. B. Pierrat from the Novartis Institute for Biomedical Research (Basel, Switzerland).

USP25 Antibody (N-term) - Background

Modification of target proteins by ubiquitin participates in a wide array of biological functions. Proteins destined for degradation or processing via the 26 S proteasome are coupled to multiple copies of ubiquitin. However, attachment of ubiquitin or ubiquitin-related molecules may also result in changes in subcellular distribution or modification of protein activity. An additional level of ubiquitin regulation, deubiquitination, is catalyzed by proteases called deubiquitinating enzymes, which fall into four distinct families. Ubiquitin C-terminal hydrolases, ubiquitin-specific processing proteases (USPs),1 OTU-domain ubiquitin-aldehyde-binding proteins, and Jab1/Pad1/MPN-domain-containing metallo-enzymes. Among these four families, USPs represent the most widespread and represented deubiquitinating enzymes across evolution. USPs tend to release ubiquitin from a conjugated protein. They display similar catalytic domains containing conserved Cys and His boxes but divergent N-terminal and occasionally C-terminal extensions, which are thought to function in substrate recognition, subcellular localization, and protein-protein interactions.

USP25 Antibody (N-term) - References

Ota, T., et al., Nat. Genet. 36(1):40-45 (2004).
Groet, J., et al., Genes Chromosomes Cancer 27(2):153-161 (2000).
Valero, R., et al., Genomics 62(3):395-405 (1999).