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USP15 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP14352a

Specification

USP15 Antibody (N-term) - Product Information

Application	**WB,E**
Primary Accession	Q9Y4E8
Other Accession	Q9R085, Q8R5H1, Q2HJE4, NP_006304.1
Reactivity	**Human, Mouse**
Predicted	**Bovine, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**112419**
Antigen Region	**254-282**

USP15 Antibody (N-term) - Additional Information

Gene ID 9958

Other Names
Ubiquitin carboxyl-terminal hydrolase 15, Deubiquitinating enzyme 15, Ubiquitin thioesterase 15, Ubiquitin-specific-processing protease 15, Unph-2, Unph4, USP15, KIAA0529

Target/Specificity
This USP15 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 254-282 amino acids from the N-terminal region of human USP15.

Dilution
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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
USP15 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

USP15 Antibody (N-term) - Protein Information

Name USP15 {ECO:0000303|PubMed:10444327, ECO:0000312|HGNC:HGNC:12613}

Function Hydrolase that removes conjugated ubiquitin from target proteins and regulates various pathways such as the TGF-beta receptor signaling, NF-kappa-B and RNF41/NRDP1-PRKN pathways (PubMed:16005295, PubMed:17318178, PubMed:19576224, PubMed:19826004, PubMed:21947082, PubMed:22344298, PubMed:24852371). Acts as a key regulator of TGF-beta receptor signaling pathway, but the precise mechanism is still unclear: according to a report, acts by promoting deubiquitination of monoubiquitinated R-SMADs (SMAD1, SMAD2 and/or SMAD3), thereby alleviating inhibition of R-SMADs and promoting activation of TGF-beta target genes (PubMed:21947082). According to another reports, regulates the TGF-beta receptor signaling pathway by mediating deubiquitination and stabilization of TGFBR1, leading to an enhanced TGF-beta signal (PubMed:22344298). Able to mediate deubiquitination of monoubiquitinated substrates, 'Lys-27'-, 'Lys-48'- and 'Lys-63'-linked polyubiquitin chains (PubMed:33093067). May also regulate gene expression and/or DNA repair through the deubiquitination of histone H2B (PubMed:24526689). Acts as an inhibitor of mitophagy by counteracting the action of parkin (PRKN): hydrolyzes cleavage of 'Lys- 48'- and 'Lys-63'-linked polyubiquitin chains attached by parkin on target proteins such as MFN2, thereby reducing parkin's ability to drive mitophagy (PubMed:24852371). Acts as an associated component of COP9 signalosome complex (CSN) and regulates different pathways via this association: regulates NF-kappa-B by mediating deubiquitination of NFKBIA and deubiquitinates substrates bound to VCP (PubMed:16005295, PubMed:17318178, PubMed:19576224, PubMed:19826004). Involved in endosome organization by mediating deubiquitination of SQSTM1: ubiquitinated SQSTM1 forms a molecular bridge that restrains cognate vesicles in the perinuclear region and its deubiquitination releases target vesicles for fast transport into the cell periphery (PubMed:27368102). Acts as a negative regulator of antifungal immunity by mediating 'Lys-27'-linked deubiquitination of CARD9, thereby inactivating CARD9 (PubMed:33093067).

Cellular Location
Cytoplasm. Nucleus. Mitochondrion

Tissue Location
Expressed in skeletal muscle, kidney, heart, placenta, liver, thymus, lung, and ovary, with little or no expression in other tissues

USP15 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

USP15 Antibody (N-term) - Images

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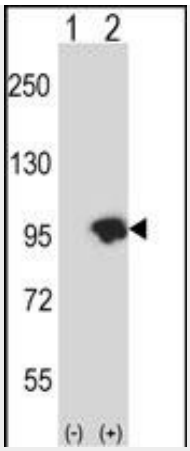
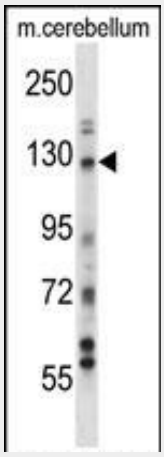


Western blot analysis of USP15 (arrow) using rabbit polyclonal USP15 Antibody (N-term) (Cat. #AP14352a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the USP15 gene.



USP15 Antibody (N-term) (Cat. #AP14352a) western blot analysis in mouse cerebellum tissue lysates (35ug/lane).This demonstrates the USP15 antibody detected the USP15 protein (arrow).

USP15 Antibody (N-term) - Background

Ubiquitin (MIM 191339), a highly conserved protein involved in the regulation of intracellular protein breakdown, cell cycle regulation, and stress response, is released from degraded proteins by disassembly of the polyubiquitin chains. The disassembly process is mediated by ubiquitin-specific proteases (USPs). Also see USP1 (MIM 603478).

USP15 Antibody (N-term) - References

Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :
Vos, R.M., et al. J. Virol. 83(17):8885-8892(2009)
Huang, X., et al. J. Mol. Biol. 391(4):691-702(2009)
Ewing, R.M., et al. Mol. Syst. Biol. 3, 89 (2007) :
Beausoleil, S.A., et al. Nat. Biotechnol. 24(10):1285-1292(2006)