

OTUB1 Antibody (C-Term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21558b

Specification

OTUB1 Antibody (C-Term) - Product Information

Application	WB,E
Primary Accession	O96FW1
Reactivity	Human, Mouse
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Calculated MW	31284

OTUB1 Antibody (C-Term) - Additional Information

Gene ID 55611

Other Names

Ubiquitin thioesterase OTUB1, Deubiquitinating enzyme OTUB1, OTU domain-containing ubiquitin aldehyde-binding protein 1, Otubain-1, hOTU1, Ubiquitin-specific-processing protease OTUB1, OTUB1, OTB1, OTU1

Target/Specificity

This OTUB1 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 185-219 amino acids from human OTUB1.

Dilution

WB~~1:1000-1:2000

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

OTUB1 Antibody (C-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

OTUB1 Antibody (C-Term) - Protein Information

Name OTUB1

Synonyms OTB1, OTU1

Function Hydrolase that can specifically remove 'Lys-48'-linked conjugated ubiquitin from proteins and plays an important regulatory role at the level of protein turnover by preventing degradation (PubMed:[12401499](#), PubMed:[12704427](#), PubMed:[14661020](#), PubMed:[23827681](#)). Regulator of T-cell anergy, a phenomenon that occurs when T-cells are rendered unresponsive to antigen rechallenge and no longer respond to their cognate antigen (PubMed:[14661020](#)). Acts via its interaction with RNF128/GRAIL, a crucial inductor of CD4 T-cell anergy (PubMed:[14661020](#)). Isoform 1 destabilizes RNF128, leading to prevent anergy (PubMed:[14661020](#)). In contrast, isoform 2 stabilizes RNF128 and promotes anergy (PubMed:[14661020](#)). Surprisingly, it regulates RNF128-mediated ubiquitination, but does not deubiquitinate polyubiquitinated RNF128 (PubMed:[14661020](#)). Deubiquitinates estrogen receptor alpha (ESR1) (PubMed:[19383985](#)). Mediates deubiquitination of 'Lys-48'-linked polyubiquitin chains, but not 'Lys-63'-linked polyubiquitin chains (PubMed:[18954305](#), PubMed:[19211026](#), PubMed:[23827681](#)). Not able to cleave di-ubiquitin (PubMed:[18954305](#), PubMed:[23827681](#)). Also capable of removing NEDD8 from NEDD8 conjugates, but with a much lower preference compared to 'Lys-48'-linked ubiquitin (PubMed:[18954305](#), PubMed:[23827681](#)).

Cellular Location

Cytoplasm {ECO:0000250|UniProtKB:B2RYG6}.

Tissue Location

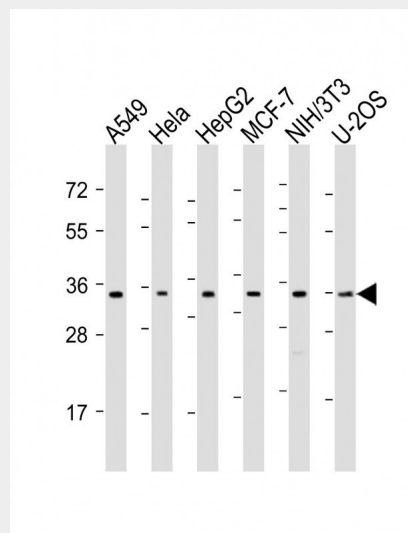
Isoform 1 is ubiquitous. Isoform 2 is expressed only in lymphoid tissues such as tonsils, lymph nodes and spleen, as well as peripheral blood mononuclear cells

OTUB1 Antibody (C-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 Cytometry](#)
- [Cell Culture](#)

OTUB1 Antibody (C-Term) - Images



All lanes : Anti-OTUB1 Antibody (C-Term) at 1:1000-1:2000 dilution Lane 1: A549 whole cell lysates Lane 2: HeLa whole cell lysates Lane 3: HepG2 whole cell lysates Lane 4: MCF-7 whole cell lysates Lane 5: NIH/3T3 whole cell lysates Lane 6: U-2OS whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 31 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

OTUB1 Antibody (C-Term) - Background

Hydrolase that can specifically remove 'Lys-48'-linked conjugated ubiquitin from proteins and plays an important regulatory role at the level of protein turnover by preventing degradation. Regulator of T-cell anergy, a phenomenon that occurs when T-cells are rendered unresponsive to antigen rechallenge and no longer respond to their cognate antigen. Acts via its interaction with RNF128/GRAIL, a crucial inductor of CD4 T-cell anergy. Isoform 1 destabilizes RNF128, leading to prevent anergy. In contrast, isoform 2 stabilizes RNF128 and promotes anergy. Surprisingly, it regulates RNF128-mediated ubiquitination, but does not deubiquitinate polyubiquitinated RNF128. Deubiquitinates estrogen receptor alpha (ESR1). Mediates deubiquitination of 'Lys- 48'-linked polyubiquitin chains, but not 'Lys-63'-linked polyubiquitin chains. Not able to cleave di-ubiquitin. Also capable of removing NEDD8 from NEDD8 conjugates, but with a much lower preference compared to 'Lys-48'-linked ubiquitin.

OTUB1 Antibody (C-Term) - References

Balakirev M.Y., et al. EMBO Rep. 4:517-522(2003).
Soares L., et al. Nat. Immunol. 5:45-54(2004).
Zhang Q.-H., et al. Genome Res. 10:1546-1560(2000).
Ota T., et al. Nat. Genet. 36:40-45(2004).
Taylor T.D., et al. Nature 440:497-500(2006).