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Goat Anti-OTUB1 Antibody

Peptide-affinity purified goat antibody
Catalog # AF1766a

Specification

Goat Anti-OTUB1 Antibody - Product Information

Application	**WB, E**
Primary Accession	Q96FW1
Other Accession	NP_060140, 55611, 107260 (mouse), 293705 (rat)
Reactivity	**Mouse**
Predicted	**Human, Rat**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**31284**

Goat Anti-OTUB1 Antibody - Additional Information

Gene ID 55611

Other Names
Ubiquitin thioesterase OTUB1, 3.4.19.12, Deubiquitinating enzyme OTUB1, OTU domain-containing ubiquitin aldehyde-binding protein 1, Otubain-1, hOTU1, Ubiquitin-specific-processing protease OTUB1, OTUB1, OTB1, OTU1

Dilution
WB~~1:1000
E~~N/A

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-OTUB1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-OTUB1 Antibody - 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

Goat Anti-OTUB1 Antibody - 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

Goat Anti-OTUB1 Antibody - Images

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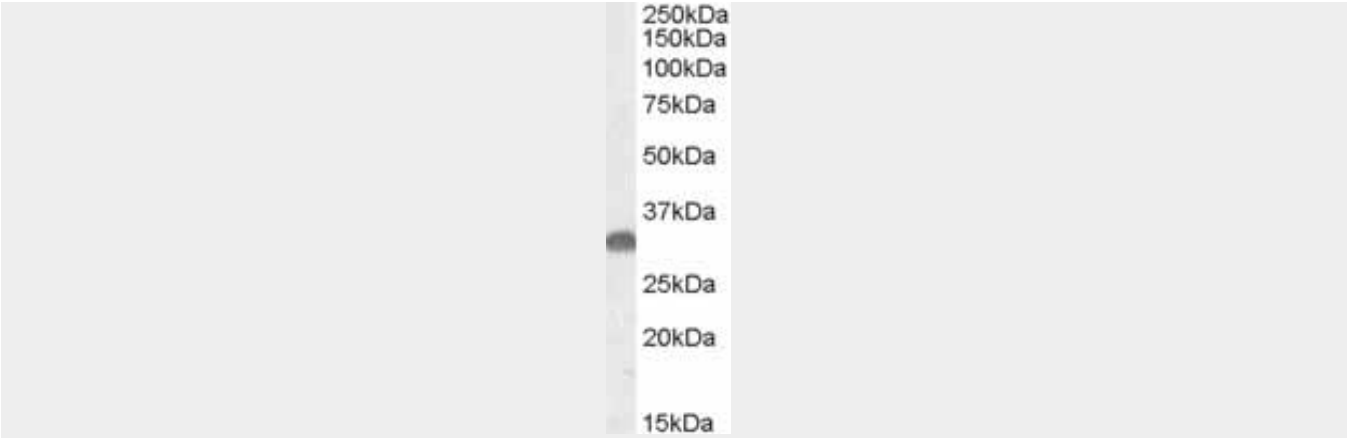

AF1766a (0.05 µg/ml) staining of Mouse Brain lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-OTUB1 Antibody - Background

The product of this gene is a member of the OTU (ovarian tumor) superfamily of predicted cysteine proteases. The encoded protein is a highly specific ubiquitin iso-peptidase, and cleaves ubiquitin from branched poly-ubiquitin chains but not from ubiquitinated substrates. It interacts with another ubiquitin protease and an E3 ubiquitin ligase that inhibits cytokine gene transcription in the immune system. It is proposed to function in specific ubiquitin-dependent pathways, possibly by providing an editing function for polyubiquitin chain growth. Alternative splicing results in multiple transcript variants.

Goat Anti-OTUB1 Antibody - References

Post-translational modification of the deubiquitinating enzyme otubain 1 modulates active RhoA levels and susceptibility to Yersinia invasion. Edelmann MJ, et al. FEBS J, 2010 Jun. PMID 20553488.
Regulation of virus-triggered signaling by OTUB1- and OTUB2-mediated deubiquitination of TRAF3 and TRAF6. Li S, et al. J Biol Chem, 2010 Feb 12. PMID 19996094.
Defining the human deubiquitinating enzyme interaction landscape. Sowa ME, et al. Cell, 2009 Jul 23. PMID 19615732.
OTU Domain-containing ubiquitin aldehyde-binding protein 1 (OTUB1) deubiquitinates estrogen receptor (ER) alpha and affects ERalpha transcriptional activity. Stanisi? V, et al. J Biol Chem, 2009 Jun 12. PMID 19383985.
Evidence for bidentate substrate binding as the basis for the K48 linkage specificity of otubain 1. Wang T, et al. J Mol Biol, 2009 Mar 6. PMID 19211026.