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OTUB1 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP9538a

Specification

OTUB1 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q96FW1

OTUB1 Antibody (N-term) Blocking Peptide - 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

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

OTUB1 Antibody (N-term) Blocking Peptide - 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:12704427, PubMed:14661020, PubMed:12401499, 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:<a

href="http://www.uniprot.org/citations/14661020" target="_blank">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:19211026, PubMed:23827681, PubMed:18954305). Not able to cleave di-ubiquitin (PubMed:23827681, PubMed:18954305). Also capable of removing NEDD8 from NEDD8 conjugates, but with a much lower preference compared to 'Lys-48'-linked ubiquitin (PubMed:23827681, PubMed:18954305).

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 (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

OTUB1 Antibody (N-term) Blocking Peptide - Images

OTUB1 Antibody (N-term) Blocking Peptide - Background

OTUB1 is a member of the OTU (ovarian tumor) superfamily of predicted cysteine proteases. This 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.

OTUB1 Antibody (N-term) Blocking Peptide - References

Stanisic, V., et al. J. Biol. Chem. 284(24):16135-16145(2009)Wang, T., et al. J. Mol. Biol. 386(4):1011-1023(2009)Edelmann, M.J., et al. Biochem. J. 418(2):379-390(2009)Juris, S.J., et al. FEBS Lett. 580(1):179-183(2006)Colland, F., et al. Genome Res. 14(7):1324-1332(2004)