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KD-Validated Anti-OTUB1 Mouse Monoclonal Antibody

Mouse monoclonal antibody
Catalog # AGI1941

Product Information

Application	WB
Primary Accession	Q96FW1
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Mouse IgG2b
Clone Names	24GB6485
Calculated MW	31284
Gene Name	OTUB1
Aliases	OTUB1; OTU Deubiquitinase, Ubiquitin Aldehyde Binding 1; OTU Domain-Containing Ubiquitin Aldehyde-Binding Protein 1; Ubiquitin-Specific-Processing Protease OTUB1; OTU Domain, Ubiquitin Aldehyde Binding 1; Deubiquitinating Enzyme OTUB1; Ubiquitin Thioesterase OTUB1; Otubain-1; FLJ20113; FLJ40710; OTB1; OTU1; Ubiquitin-Specific Protease Otubain 1; OTU-Domain Ubal-Binding 1; EC 3.4.19.12; EC 3.1.2; HSPC263; HOTU1
Immunogen	Recombinant protein of human OTUB1

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

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

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