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Ubiquitin D Recombinant Rabbit mAb

Catalog # AP99549

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	O15205
Other Accession	O15205
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Recombinant
Calculated MW	18473
Physical State	Liquid
Immunogen	A synthesized peptide derived from human FAT10
Epitope Specificity	100-165
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	10mM phosphate buffered saline(pH 7.4) with 150mM sodium chloride, 0.05% BSA, 0.02% Proclin300 and 50% glycerol.
SIMILARITY	Contains 2 ubiquitin-like domains.
Post-translational modifications	Can be acetylated.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Ubiquitin-like protein modifier which can be covalently attached to target protein and subsequently leads to their degradation by the 26S proteasome, in a NUB1-dependent manner. Probably functions as a survival factor. Conjugation ability activated by UBA6. Promotes the expression of the proteasome subunit beta type-9 (PSMB9/LMP2).

Additional Information

Gene ID	10537
Other Names	FAT10; UBD-3; UBD_HUMAN; UBD; Diubiquitin; Ubiquitin-like protein FAT10; UBD_MOUSE; ubiquitin like modifier D; ubiquitin D
Dilution	WB=1:1000-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:50-200,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	UBD
Synonyms	FAT10
Function	Ubiquitin-like protein modifier which can be covalently attached to target proteins and subsequently leads to their degradation by the 26S proteasome, in a NUB1-dependent manner (PubMed:15831455, PubMed:16707496, PubMed:19166848). Conjugation to the target protein is activated by UBA6 via adenylation of its C-terminal glycine (PubMed:17889673, PubMed:35970836). Promotes the expression of the proteasome subunit beta type-9 (PSMB9/LMP2). Regulates TNF-induced and LPS-mediated activation of the central mediator of innate immunity NF- kappa-B by promoting TNF-mediated proteasomal degradation of ubiquitinated-I-kappa-B-alpha (PubMed:19959714). Required for TNF- induced p65 nuclear translocation in renal tubular epithelial cells (RTECs). May be involved in dendritic cell (DC) maturation, the process by which immature dendritic cells differentiate into fully competent antigen-presenting cells that initiate T-cell responses (PubMed:19028597). Mediates mitotic non-disjunction and chromosome instability, in long-term in vitro culture and cancers, by abbreviating mitotic phase and impairing the kinetochore localization of MAD2L1 during the prometaphase stage of the cell cycle (PubMed:16495226). May be involved in the formation of aggresomes when proteasome is saturated or impaired (PubMed:19033385). Mediates apoptosis in a caspase- dependent manner, especially in renal epithelium and tubular cells during renal diseases such as polycystic kidney disease and Human immunodeficiency virus (HIV)-associated nephropathy (HIVAN) (PubMed:16495380).
Cellular Location	Nucleus. Cytoplasm {ECO:0000250|UniProtKB:P63072} Note=Accumulates in aggresomes under proteasome inhibition conditions
Tissue Location	Constitutively expressed in mature dendritic cells and B-cells. Mostly expressed in the reticuloendothelial system (e.g thymus, spleen), the gastrointestinal system, kidney, lung and prostate gland.

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