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FAT10 Polyclonal Antibody

Catalog # AP73861

Product Information

Application	WB
Primary Accession	O15205
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	18473

Additional Information

Gene ID	10537
Other Names	UBD; FAT10; Ubiquitin D; Diubiquitin; Ubiquitin-like protein FAT10
Dilution	WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/10000. Not yet tested in other applications.
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

Protein Information

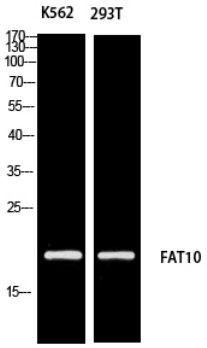
Name	UBD
Synonyms	FAT10
Function	Ubiquitin-like protein modifier which can be covalently attached to target proteins and subsequently leads to their degradation by the 26S proteasome, in a NUB1-dependent manner (PubMed:15831455, PubMed:16707496, PubMed:19166848). Conjugation to the target protein is 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-alpha- induced and LPS-mediated activation of the central mediator of innate immunity NF-kappa-B by promoting TNF-alpha-mediated proteasomal degradation of ubiquitinated-I-kappa-B-alpha (PubMed:19959714). Required for TNF-alpha-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.

Background

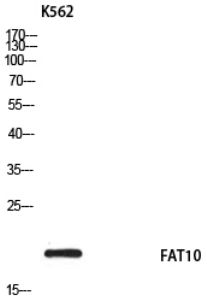
Ubiquitin-like protein modifier which can be covalently attached to target protein and subsequently leads to their degradation by the 26S proteasome, in a NUB1-dependent manner. Probably functions as a survival factor. Conjugation ability activated by UBA6. Promotes the expression of the proteasome subunit beta type-9 (PSMB9/LMP2). Regulates TNF-alpha-induced and LPS-mediated activation of the central mediator of innate immunity NF-kappa-B by promoting TNF-alpha-mediated proteasomal degradation of ubiquitinated-I-kappa-B-alpha. Required for TNF-alpha-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. 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. May be involved in the formation of aggresomes when proteasome is saturated or impaired. 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).

Images



Western blot analysis of K562 293T using FAT10 antibody. Antibody was diluted at 1:1000. Secondary antibody was diluted at 1:20000

Western blot analysis of K562 using FAT10 antibody. Antibody was diluted at 1:1000. Secondary antibody was diluted at 1:20000



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