

**FAT10 Polyclonal Antibody**  
**Catalog # AP73861****Specification**

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**FAT10 Polyclonal Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">O15205</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal

**FAT10 Polyclonal Antibody - 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°C

**FAT10 Polyclonal Antibody - 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](http://www.uniprot.org/citations/15831455), PubMed: [16707496](http://www.uniprot.org/citations/16707496), PubMed: [19166848](http://www.uniprot.org/citations/19166848)). Conjugation to the target protein is activated by UBA6 via adenylation of its C-terminal glycine (PubMed: [17889673](http://www.uniprot.org/citations/17889673), PubMed: [35970836](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/19959714) target="\_blank">19959714</a>). 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:<a href="http://www.uniprot.org/citations/19028597" target="\_blank">19028597</a>). 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:<a href="http://www.uniprot.org/citations/16495226" target="\_blank">16495226</a>). May be involved in the formation of aggresomes when proteasome is saturated or impaired (PubMed:<a href="http://www.uniprot.org/citations/19033385" target="\_blank">19033385</a>). 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:<a href="http://www.uniprot.org/citations/16495380" target="\_blank">16495380</a>).

### Cellular Location

Nucleus. Cytoplasm {ECO:0000250|UniProtKB:P63072} Note=Accumulates in aggresomes under proteasome inhibition conditions

### Tissue Location

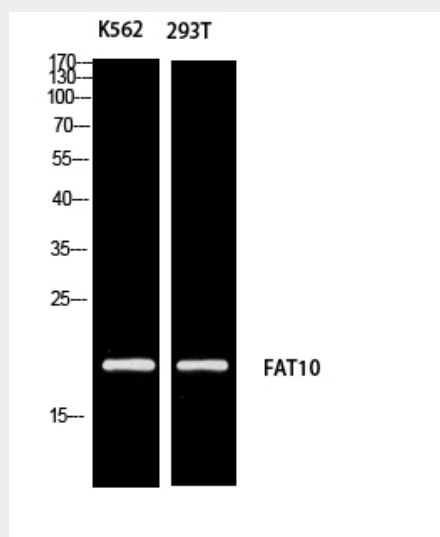
Constitutively expressed in mature dendritic cells and B-cells. Mostly expressed in the reticuloendothelial system (e.g thymus, spleen), the gastrointestinal system, kidney, lung and prostate gland.

## FAT10 Polyclonal Antibody - Protocols

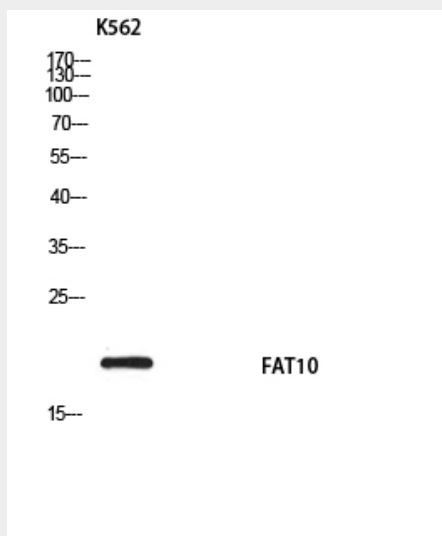
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

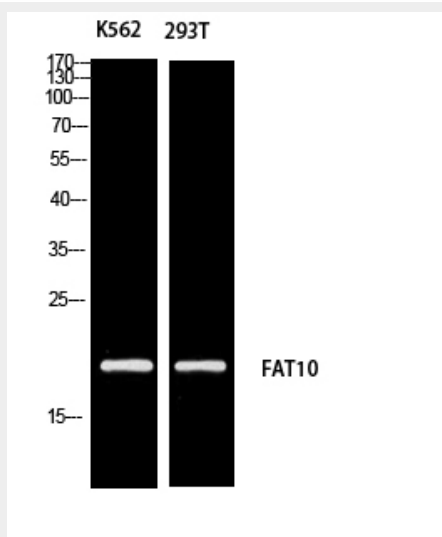
## FAT10 Polyclonal Antibody - Images



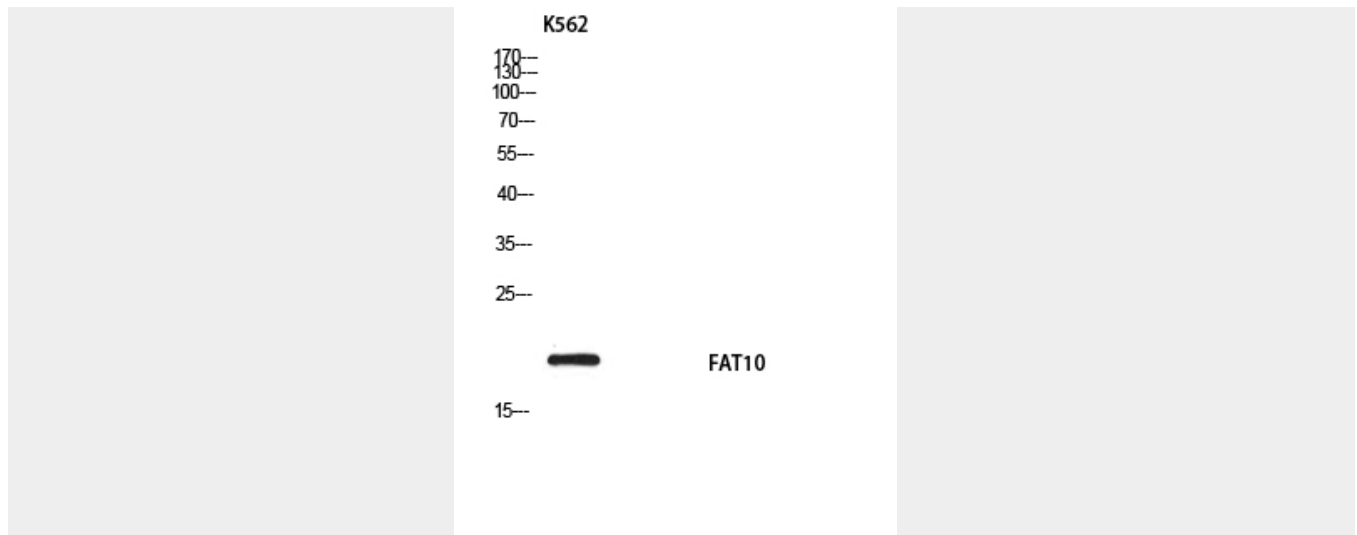
Western blot analysis of K562 293T using FAT10 antibody. Antibody was diluted at 1:1000. Secondary antibody was diluted at 1:20000



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



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

#### **FAT10 Polyclonal Antibody - 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).