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Anti-Diubiquitin Antibody
Catalog # ABO11532

Specification

Anti-Diubiquitin Antibody - Product Information

Application	**WB, IHC-P**
Primary Accession	O15205
Host	**Rabbit**
Reactivity	**Human**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Ubiquitin D(UBD) detection. Tested with WB, IHC-P in Human.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Diubiquitin Antibody - Additional Information

Gene ID 10537

Other Names
Ubiquitin D, Diubiquitin, Ubiquitin-like protein FAT10, UBD, FAT10

Calculated MW
18473 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat
Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization
Nucleus . Cytoplasm . Accumulates in aggresomes under proteasome inhibition conditions.

Tissue Specificity
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. .

Protein Name
Ubiquitin D

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the N-terminus of human Diubiquitin(27-40aa YDSVKKIKEHVRSK), different from the related mouse and rat sequences by five amino acids.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage

At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities
Contains 2 ubiquitin-like domains.

Anti-Diubiquitin 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, 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

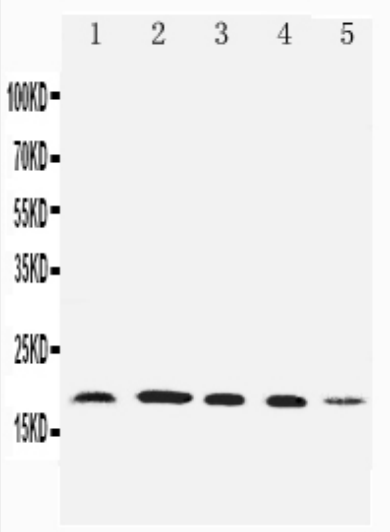
prostate gland.

Anti-Diubiquitin Antibody - Protocols

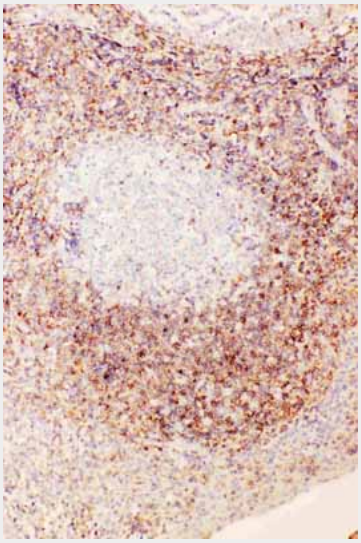
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Diubiquitin Antibody - Images



Anti-Diubiquitin antibody, ABO11532, Western blottingLane 1: HELA Cell LysateLane 2: SKOV Cell LysateLane 3: MCF-7 Cell LysateLane 4: A549 Cell LysateLane 5: SMMC Cell Lysate



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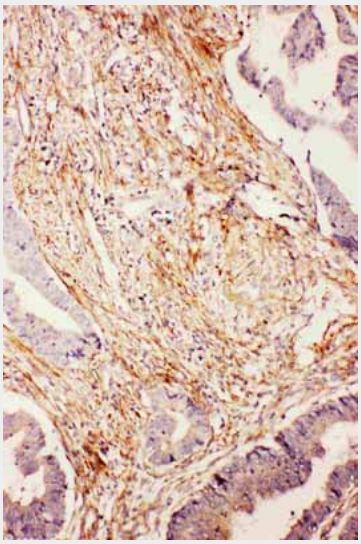
Anti-Diubiquitin antibody, ABO11532, IHC(P)IHC(P): Human Tonsil Tissue



Anti-Diubiquitin antibody, ABO11532, IHC(P)IHC(P): Human Intestinal Cancer Tissue

Anti-Diubiquitin Antibody - Background

Ubiquitin D, also called UBD or FAT10 is a protein that in humans is encoded by the UBD gene. This gene is mapped to 6p22.1. Ubiquitin-like protein modifier can be covalently attached to target protein and subsequently leads to their degradation by the 26S proteasome in a NUB1L-dependent manner. This gene 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. It may be involved in the formation of aggresomes when proteasome is saturated or impaired. This gene 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). It probably functions as a survival factor.