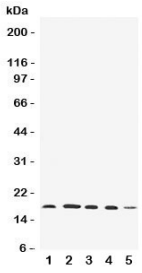
UBD Antibody / Ubiquitin-Like Modifier Antibody (R31346)

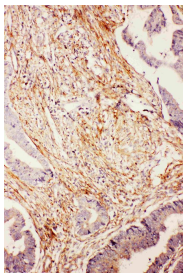
Catalog No.	Formulation	Size
R31346	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

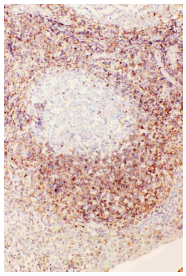
Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide/thimerosal
UniProt	O15205
Applications	Western blot: 0.5-1ug/ml IHC (FFPE): 0.5-1ug/ml
Limitations	This UBD Antibody / Ubiquitin-Like Modifier Antibody is available for research use only.



UBD Antibody Human Cell Line Panel WB. Western blot analysis of UBD expression was performed using anti-UBD antibody in multiple human cell line lysates. Lane 1: HeLa. Lane 2: SKOV. Lane 3: MCF-7. Lane 4: A549. Lane 5: SMMC-7721. UBD, also known as FAT10 (Ubiquitin D), is a ubiquitin-like modifier that targets substrate proteins for proteasomal degradation and participates in immune regulation, inflammatory signaling, and cellular stress responses. A specific immunoreactive band is detected at approximately 18â€“22 kDa in all five cell lines, corresponding to the expected molecular weight range of UBD. The broad expression profile across diverse human cancer cell lines supports the utility of UBD Antibody for studies of ubiquitin-like protein conjugation, proteasomal degradation, immune signaling, inflammation, and cancer biology.



UBD Antibody Human Intestinal Cancer IHC. IHC staining of FFPE human intestinal cancer tissue with UBD antibody demonstrated moderate to strong cytoplasmic staining within malignant cells and adjacent stromal components, consistent with the expression pattern of UBD (Ubiquitin D), also known as FAT10. UBD is a ubiquitin-like modifier that targets proteins for proteasomal degradation and is induced by pro-inflammatory cytokines including interferon-Î³ and TNF-Î±. Increased UBD expression has been reported in gastrointestinal malignancies, where it has been associated with inflammation, altered protein homeostasis, and tumor progression. The observed staining supports the utility of UBD Antibody for studies of ubiquitin-like protein conjugation, proteasomal degradation, immune signaling, and cancer biology. Immunohistochemistry was performed on formalin-fixed, paraffin-embedded human intestinal cancer tissue.



UBD Antibody Human Tonsil IHC. IHC staining of FFPE human tonsil tissue with UBD antibody demonstrated prominent cytoplasmic staining in lymphoid cells within the tonsillar follicles and surrounding immune cell populations, consistent with the expression pattern of UBD (Ubiquitin D), also known as FAT10. UBD is a ubiquitin-like modifier that is strongly induced by the pro-inflammatory cytokines interferon-Î³ and TNF-Î± and plays important roles in proteasomal degradation, antigen processing, and immune regulation. The abundant staining observed in this lymphoid tissue is consistent with the established role of UBD in activated immune cells and inflammatory responses. These results support the utility of UBD Antibody for studies of ubiquitin-like protein conjugation, immune signaling, inflammation, and lymphoid tissue biology. Immunohistochemistry was performed on formalin-fixed, paraffin-embedded human tonsil tissue.

Description

UBD Antibody / Ubiquitin-Like Modifier Antibody recognizes UBD (Ubiquitin D), also known as FAT10, a ubiquitin-like protein that mediates selective proteasomal degradation of intracellular proteins. Unlike ubiquitin, which commonly functions through polyubiquitin chain formation, UBD is directly conjugated to target proteins through a dedicated enzymatic cascade, promoting their rapid degradation by the 26S proteasome. This process, referred to as FAT10ylation, regulates protein turnover and contributes to cellular homeostasis, immune activation, and inflammatory responses. The recombinant rabbit monoclonal antibody is well suited for detecting UBD in studies of ubiquitin-like protein modification and proteasomal degradation.

UBD expression is tightly regulated and is strongly induced by inflammatory cytokines including interferon-ÃŽÂ³ (IFN-ÃŽÂ³) and tumor necrosis factor-ÃŽÂ± (TNF-ÃŽÂ±). Under physiological conditions, expression is largely restricted to activated immune cells and inflamed tissues, where UBD participates in antigen processing, innate immune responses, apoptosis, and cellular adaptation to stress. Unlike many ubiquitin-dependent pathways, UBD can regulate proteasomal degradation independently of classical ubiquitination, providing an additional mechanism for controlling protein stability during immune activation and inflammation.

Aberrant UBD expression has been reported in numerous human cancers, including hepatocellular carcinoma, colorectal cancer, gastric cancer, pancreatic cancer, and other epithelial malignancies. Increased UBD levels have been associated with enhanced cell proliferation, altered apoptosis, chromosomal instability, and poor clinical outcome in several tumor types. Consequently, UBD has emerged as an important biomarker for studies of inflammation-associated tumorigenesis and a potential therapeutic target for diseases involving dysregulated proteostasis and immune signaling. UBD Antibody / Ubiquitin-Like Modifier Antibody is an excellent tool for investigations of protein quality control, proteasomal degradation, immune regulation, inflammatory signaling, and cancer biology.

Explore our FAT10 Antibody / Ubiquitin-Like Modifier Antibody page for additional information on this important regulator of proteasomal degradation, immune signaling, and inflammatory responses.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the UBD Antibody / Ubiquitin-Like Modifier Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

An amino acid sequence from the N-terminus of human HLA-F-adjacent transcript 10 (YDSVKKIKEHVRSK) was used as the immunogen for this FAT10 / UBD antibody.

Storage

After reconstitution, the FAT10 / UBD antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

UBD antibody, FAT10 antibody, Ubiquitin D antibody, HLA-F Adjacent Transcript 10 antibody, Ubiquitin-Like Modifier antibody, FAT10 Protein antibody

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