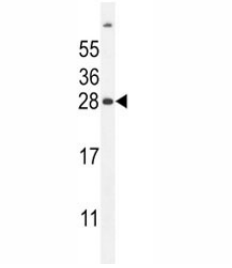
FAT10 Antibody / Ubiquitin-Like Modifier Antibody (F40095)

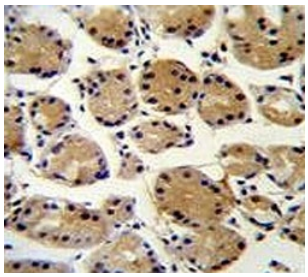
Catalog No.	Formulation	Size
F40095-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F40095-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

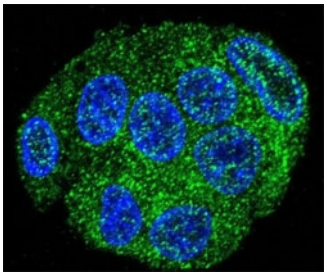
Availability	1-3 business days
Species Reactivity	Mouse
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	O15205
Applications	Western blot: 1:1000 Immunohistochemistry (Paraffin): 1:50-1:100 Immunofluorescence: 1:10-1:50
Limitations	This FAT10 Antibody / Ubiquitin-Like Modifier Antibody is available for research use only.



FAT10 Antibody Mouse Liver WB. Western blot analysis of FAT10 expression was performed using anti-FAT10 antibody in mouse liver tissue lysate. FAT10, also known as Ubiquitin D (UBD), is a ubiquitin-like modifier that targets proteins for proteasomal degradation and plays important roles in immune regulation, inflammatory signaling, and protein homeostasis. A specific immunoreactive band is detected at approximately 28 kDa, consistent with the observed migration of FAT10 under these experimental conditions. Differences between predicted and apparent molecular weight may reflect the biochemical properties of this ubiquitin-like protein or post-translational modification. These results support the utility of FAT10 Antibody for studies of proteasomal degradation, ubiquitin-like protein conjugation, immune responses, and inflammation.



FAT10 Antibody Human Stomach Carcinoma IHC. IHC staining of FFPE human stomach carcinoma tissue with FAT10 antibody demonstrated moderate to strong cytoplasmic staining in malignant epithelial cells, consistent with the expression pattern of FAT10 (Ubiquitin D, UBD), a ubiquitin-like modifier involved in proteasomal degradation, immune regulation, and inflammatory signaling. FAT10 expression is induced by pro-inflammatory cytokines including interferon-Î³ and TNF-Î± and has been reported to be elevated in several human malignancies, where it may contribute to tumor progression, altered protein homeostasis, and immune responses within the tumor microenvironment. The observed staining supports the utility of FAT10 Antibody for studies of cancer biology, inflammation, and ubiquitin-like protein conjugation. Immunohistochemistry was performed on formalin-fixed, paraffin-embedded human stomach carcinoma tissue.



FAT10 Antibody Human HepG2 IF. Immunofluorescent staining of human HepG2 cells with FAT10 antibody demonstrated punctate cytoplasmic staining (green), consistent with the intracellular localization of FAT10 (Ubiquitin D, UBD), a ubiquitin-like modifier that targets proteins for proteasomal degradation and regulates immune and inflammatory signaling. FAT10 expression is induced by pro-inflammatory cytokines and participates in protein quality control, antigen processing, and cellular stress responses. The punctate cytoplasmic distribution is consistent with the localization of FAT10-associated protein conjugates within the cytoplasm. Alexa Fluor 488-conjugated goat anti-rabbit IgG was used for detection, and nuclei were counterstained with DAPI (blue). These results support the utility of FAT10 Antibody for studies of ubiquitin-like protein modification, proteasomal degradation, immune regulation, and cancer biology.

Description

FAT10 Antibody / Ubiquitin-Like Modifier Antibody recognizes FAT10, also known as Ubiquitin D (UBD), a ubiquitin-like protein that regulates proteasomal degradation, immune signaling, and inflammatory responses. Unlike ubiquitin, which requires formation of polyubiquitin chains for many of its cellular functions, FAT10 is conjugated directly to substrate proteins through a dedicated enzymatic pathway, targeting them for rapid degradation by the 26S proteasome. This FAT10-dependent modification, known as FAT10ylation, provides an alternative mechanism for controlling protein turnover and maintaining cellular homeostasis. FAT10 Antibody / Ubiquitin-Like Modifier Antibody is widely used to investigate pathways linking inflammation, protein quality control, and immune regulation.

FAT10 expression is normally limited but is strongly induced by the pro-inflammatory cytokines interferon-ÃŽÂ³ (IFN-ÃŽÂ³) and tumor necrosis factor-ÃŽÂ± (TNF-ÃŽÂ±). The protein is most prominently expressed in immune tissues and activated immune cells, where it contributes to antigen processing, innate immune responses, and regulation of inflammatory signaling pathways. FAT10 also interacts with components of the major histocompatibility complex (MHC) and influences protein degradation independently of classical ubiquitination. Through these activities, FAT10 participates in cellular stress responses, apoptosis, and maintenance of protein homeostasis during inflammation and infection. FAT10 Antibody / Ubiquitin-Like Modifier Antibody is therefore valuable for studies of immune activation and cytokine-regulated protein turnover.

Dysregulated FAT10 expression has been associated with numerous pathological conditions including hepatocellular carcinoma, colorectal cancer, gastric cancer, pancreatic cancer, and other malignancies. Elevated FAT10 levels have also been linked to chronic inflammatory disorders, viral infection, metabolic disease, and altered immune responses. Because FAT10 influences cell cycle progression, apoptosis, chromosomal stability, and proteasomal degradation, abnormal expression may contribute to tumor development and disease progression. FAT10 has consequently emerged as both a biomarker and a potential therapeutic target in cancer and inflammation research.

FAT10 Antibody / Ubiquitin-Like Modifier Antibody is a valuable tool for investigations of ubiquitin-like protein modification, proteasomal degradation, immune signaling, inflammation, and cancer biology. Researchers frequently use FAT10

Antibody / Ubiquitin-Like Modifier Antibody to study cytokine-induced signaling, protein quality control, antigen processing, and mechanisms regulating cellular stress responses. Because FAT10 serves as an important mediator linking inflammatory signaling with selective protein degradation, FAT10 Antibody / Ubiquitin-Like Modifier Antibody supports a broad range of studies in immunology, cell biology, and translational disease research.

Explore our Immunology Antibodies page to learn more about proteins that regulate ubiquitin-like modification, antigen processing, and inflammatory immune responses.

Application Notes

Titration of the FAT10 Antibody / Ubiquitin-Like Modifier Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 120-153 from the human protein was used as the immunogen for this FAT10 antibody.

Storage

Aliquot the FAT10 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

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

Copyright © NSJ Bioreagents. All rights reserved.