

TRIM47 Antibody / Tripartite motif-containing protein 47 (FY13011)

Catalog No.	Formulation	Size
FY13011	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q96LD4
Applications	Western Blot : 0.25-0.5ug/ml Immunohistochemistry : 2-5ug/ml Immunocytochemistry/Immunofluorescence : 5ug/ml ELISA : 0.1-0.5ug/ml
Limitations	This TRIM47 antibody is available for research use only.

Description

TRIM47 antibody detects Tripartite motif-containing protein 47, an E3 ubiquitin ligase that regulates protein degradation, signal transduction, and immune responses. The UniProt recommended name is Tripartite motif-containing protein 47 (TRIM47). This protein is a member of the TRIM family characterized by the RING finger, B-box, and coiled-coil domains that define its ubiquitin ligase function and protein interaction capacity.

Functionally, TRIM47 antibody identifies a 638-amino-acid cytoplasmic and nuclear protein that facilitates ubiquitination of target substrates, marking them for proteasomal degradation or functional modification. TRIM47 modulates diverse cellular pathways, including interferon signaling, MAPK activation, and cell cycle regulation. Its ligase activity controls turnover of key signaling mediators, contributing to immune homeostasis and stress response.

The TRIM47 gene is located on chromosome 17q24.3 and is expressed in multiple tissues, including brain, kidney, and endothelial cells. TRIM47 interacts with adaptor proteins and kinases to regulate NF-kappaB activation, antiviral defense, and inflammatory signaling. It has also been implicated in the regulation of apoptosis and autophagy, linking ubiquitin signaling to cellular stress adaptation. TRIM47 may influence the degradation of misfolded or damaged proteins during

oxidative or inflammatory stress.

In cancer biology, TRIM47 acts as an oncogenic factor in glioma, lung adenocarcinoma, and prostate cancer, where it promotes proliferation and metastasis by modulating MAPK and STAT3 pathways. Overexpression correlates with poor prognosis and enhanced resistance to apoptosis. Conversely, loss of TRIM47 activity may impair innate immune signaling, reducing antiviral defenses and inflammatory gene activation.

TRIM47 antibody is widely used in studies of ubiquitin signaling, innate immunity, and cancer biology. It is suitable for western blotting, immunoprecipitation, and immunofluorescence to examine TRIM47 expression and interactions. In immunology, this antibody supports investigations of antiviral pathways and cytokine regulation. In oncology, TRIM47 serves as a potential biomarker of tumor aggressiveness and therapeutic resistance.

Structurally, TRIM47 contains a RING-type zinc-binding motif conferring E3 ligase activity, B-box domains for stability, and a coiled-coil region for multimerization. Its C-terminal PRY/SPRY domain mediates substrate recognition and specificity. NSJ Bioreagents provides TRIM47 antibody reagents validated for use in ubiquitin signaling, immune regulation, and cancer research.

Application Notes

Optimal dilution of the TRIM47 antibody should be determined by the researcher.

Immunogen

E.coli-derived human TRIM47 recombinant protein (Position: A206-I624) was used as the immunogen for the TRIM47 antibody.

Storage

After reconstitution, the TRIM47 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.