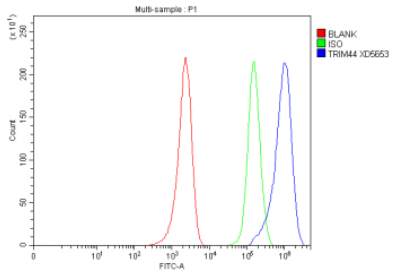
TRIM44 Antibody / Tripartite motif-containing protein 44 (FY12919)

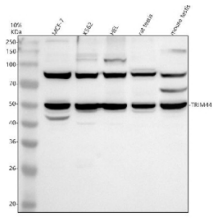
Catalog No.	Formulation	Size
FY12919	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
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	Q96DX7
Applications	Western Blot : 0.25-0.5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This TRIM44 antibody is available for research use only.



Flow Cytometry analysis of MCF-7 cells using anti-TRIM44 antibody. Overlay histogram showing MCF-7 cells stained with (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-TRIM44 antibody (1 ug/million cells) for 30 min at 20oC. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20oC. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Western blot analysis of TRIM44 using anti-TRIM44 antibody. Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human MCF-7 whole cell lysates, Lane 2: human K562 whole cell lysates, Lane 3: human HEL whole cell lysates, Lane 4: rat testis tissue lysates, Lane 5: mouse testis tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-TRIM44 antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using an ECL Plus Western Blotting Substrate. A prominent band is observed at ~50 kDa, running higher than the ~38 kDa prediction, with an additional band at ~80 kDa. The upward shift and higher species are consistent with isoform-dependent migration and SDS-resistant dimer or ubiquitinated forms reported for TRIM44 and related TRIM family proteins.

Description

TRIM44 antibody detects Tripartite motif-containing protein 44, an E3 ubiquitin ligase-like protein that regulates cell growth, stress response, and signaling through its role in ubiquitination and protein stabilization. Encoded by the TRIM44 gene on chromosome 11p13, this protein belongs to the tripartite motif (TRIM) family, characterized by a RING finger domain, B-box motifs, and a coiled-coil region that mediate protein-protein interactions. TRIM44 functions as a scaffold protein that influences autophagy, signal transduction, and oncogenic pathways by regulating substrate ubiquitination.

Structurally, TRIM44 is a 512-amino-acid cytoplasmic protein of approximately 57 kilodaltons containing a zinc-binding B-box and coiled-coil domains typical of TRIM proteins. Unlike many family members, TRIM44 lacks a canonical RING finger domain but instead contains a zinc metalloprotease-like region that mediates protein stabilization rather than degradation. This structural divergence enables TRIM44 to protect target proteins from proteasomal degradation, thereby modulating multiple signaling cascades including NF-?B and PI3K/AKT pathways.

The TRIM44 antibody is widely used in cancer biology, immunology, and cell signaling research to study ubiquitin-dependent protein regulation, tumor progression, and cellular stress response. Western blot analysis detects a 57 kilodalton band corresponding to TRIM44, while immunofluorescence shows cytoplasmic and perinuclear staining, reflecting its role in signaling and vesicular trafficking. This antibody provides a dependable reagent for investigating the molecular mechanisms by which TRIM44 regulates protein turnover and signal transduction.

Functionally, TRIM44 stabilizes key signaling proteins including mTOR and NF-?B regulators, promoting survival under stress conditions such as oxidative damage or nutrient deprivation. Overexpression of TRIM44 has been observed in multiple cancers including gastric, lung, and breast carcinomas, where it enhances proliferation, migration, and epithelial-mesenchymal transition (EMT). Conversely, its depletion sensitizes cells to apoptosis and autophagic degradation. The TRIM44 antibody supports research exploring ubiquitin signaling networks, autophagy regulation, and cancer-associated proteostasis. NSJ Bioreagents validates this antibody for its applications ensuring reproducible performance in cellular signaling and oncogenic pathway studies.

Application Notes

Optimal dilution of the TRIM44 antibody should be determined by the researcher.

Immunogen

E.coli-derived human TRIM44 recombinant protein (Position: M1-E332) was used as the immunogen for the TRIM44 antibody.

Storage

After reconstitution, the TRIM44 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at

-20oC. Avoid repeated freezing and thawing.