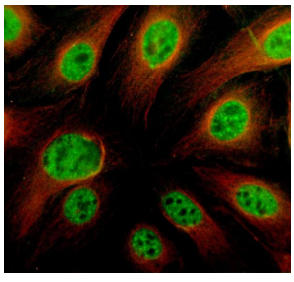
TRIM11 Antibody / Tripartite motif-containing protein 11 (FY12460)

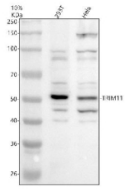
Catalog No.	Formulation	Size
FY12460	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

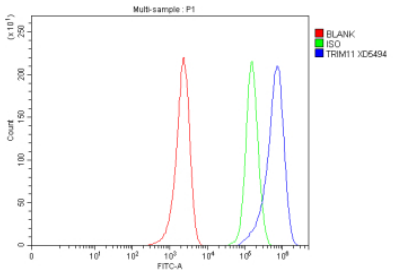
Availability	1-2 days
Species Reactivity	Human
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q96F44
Localization	Nuclear, cytoplasmic
Applications	Western Blot : 0.25-0.5ug/ml Immunocytochemistry/Immunofluorescence : 5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This TRIM11 antibody is available for research use only.



Immunofluorescent staining of TRIM11 using anti-TRIM11 antibody (green) and anti-Alpha Tubulin antibody (red). TRIM11 was detected in an immunocytochemical section of HELA cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/ml rabbit anti-TRIM11 antibody and mouse anti-Beta Tubulin antibody overnight at 4oC. DyLight 488 Conjugated Goat Anti-Rabbit IgG and Cy3 Conjugated Goat Anti-Mouse IgG were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37oC. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Western blot analysis of TRIM11 using anti-TRIM11 antibody. Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human 293T whole cell lysates, Lane 2: human Hela whole cell 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-TRIM11 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. TRIM11 (~52 kDa predicted) was detected primarily at ~50-55 kDa across samples. Additional bands (observed at ~60-70 kDa in some lanes) likely reflect TRIM11 splice variants or post-translationally modified forms.



Flow Cytometry analysis of MCF-7 cells using anti-TRIM11 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-TRIM11 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.

Description

TRIM11 antibody recognizes Tripartite motif-containing protein 11, an E3 ubiquitin-protein ligase that plays a central role in protein quality control, neuronal regulation, and innate immunity. TRIM11 belongs to the TRIM family of proteins, which share a conserved architecture comprising a RING finger domain, one or two B-box motifs, and a coiled-coil region. This configuration enables TRIM11 to act as a multifunctional scaffold for substrate recognition and ubiquitin transfer. The TRIM11 antibody is extensively used in molecular and cellular biology research to study ubiquitination, neurodegeneration, and cancer signaling networks that depend on proteostasis and regulated protein degradation.

Encoded by the TRIM11 gene located on human chromosome 1q42.13, the protein is composed of approximately 465 amino acids and localizes predominantly to the cytoplasm, although nuclear accumulation occurs under specific stress conditions. Functionally, TRIM11 mediates the ubiquitination and degradation of misfolded or aggregated proteins, thereby maintaining neuronal homeostasis. It directly interacts with substrates such as Humanin, a neuroprotective peptide, and acts as a negative regulator of stress-induced signaling. Through its ubiquitin ligase activity, TRIM11 contributes to proteasome-mediated clearance of abnormal proteins, preventing cytotoxic accumulation observed in neurodegenerative diseases like Alzheimer's and Parkinson's.

The TRIM11 antibody is also valuable for studying tumorigenesis, as elevated TRIM11 expression has been reported in glioma, breast, and colorectal cancers. It promotes cell proliferation and migration by targeting tumor suppressors for degradation and by activating signaling pathways such as PI3K/AKT and ERK/MAPK. Additionally, TRIM11 can suppress interferon-stimulated gene expression, indicating a regulatory role in antiviral immunity. Western blot analyses using this antibody typically reveal a band near 52-55 kDa, corresponding to the full-length protein. Immunofluorescence assays show diffuse cytoplasmic localization with punctate distribution, consistent with its role in protein turnover and ubiquitin signaling.

At the molecular level, TRIM11 associates with proteasomal subunits and chaperone complexes, enhancing clearance of misfolded proteins generated during oxidative stress or viral infection. Knockdown studies reveal increased accumulation of aggregation-prone proteins and elevated sensitivity to stress-induced apoptosis, demonstrating TRIM11's role as a cellular quality control factor. The protein also regulates transcriptional activity by modulating the degradation of transcriptional co-repressors and signaling intermediates. NSJ Bioreagents provides a validated TRIM11 antibody

optimized for western blot, immunocytochemistry, and immunoprecipitation, offering researchers a reliable tool to investigate ubiquitin signaling, neuronal protection, and oncogenic pathways linked to TRIM11.

Application Notes

Optimal dilution of the TRIM11 antibody should be determined by the researcher.

Immunogen

E.coli-derived human TRIM11 recombinant protein (Position: M1-R336) was used as the immunogen for the TRIM11 antibody.

Storage

After reconstitution, the TRIM11 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.