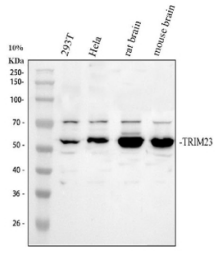
TRIM23 Antibody / Tripartite motif-containing protein 23 (FY13136)

Catalog No.	Formulation	Size
FY13136	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	P36406
Applications	Western Blot: 0.25-0.5ug/ml ELISA: 0.1-0.5ug/ml
Limitations	This TRIM23 antibody is available for research use only.



Western blot analysis of TRIM23 using anti-TRIM23 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, Lane 3: rat brain tissue lysates, Lane 4: mouse brain 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-TRIM23 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. TRIM23 antibody detects a dominant band at ~55 kDa with a weaker band at ~70 kDa across 293T, HeLa, and rodent brain lysates. Although the predicted size is ~64 kDa, TRIM23 commonly appears as a paired signal due to post-translational modification. The upper band is consistent with mono-ubiquitinated or hyperphosphorylated TRIM23, while the lower band likely represents a dephosphorylated or truncated form.

Description

TRIM23 antibody detects Tripartite motif-containing protein 23, a multifunctional E3 ubiquitin ligase involved in autophagy, vesicle trafficking, and innate immunity. The UniProt recommended name is Tripartite motif-containing protein 23 (TRIM23). This cytoplasmic protein belongs to the TRIM family, characterized by RING, B-box, and coiled-coil domains mediating protein-protein interactions and ubiquitin ligase activity.

Functionally, TRIM23 antibody identifies a 586-amino-acid protein that regulates signaling complexes and autophagy. TRIM23 ubiquitinates and activates TBK1 kinase, promoting antiviral autophagy and interferon responses. It also coordinates endomembrane trafficking by acting as an Arf GAP (GTPase-activating protein), linking vesicular dynamics to immune signaling.

The TRIM23 gene is located on chromosome 5q12.3 and is expressed in multiple tissues, with highest levels in brain, lung, and immune cells. Through its dual ubiquitin ligase and Arf GAP activities, TRIM23 integrates membrane trafficking and host defense. It contributes to selective autophagy of pathogens and protein aggregates.

Pathologically, altered TRIM23 expression has been associated with neurodegeneration, viral infection, and cancer. In neurons, TRIM23 maintains axonal homeostasis, while in immune cells it regulates autophagic responses. Research using TRIM23 antibody supports studies in innate immunity, autophagy, and vesicle biology.

TRIM23 antibody is validated for western blotting, immunofluorescence, and immunohistochemistry to detect E3 ligases and autophagy regulators. NSJ Bioreagents provides TRIM23 antibody reagents optimized for studies in protein ubiquitination, intracellular trafficking, and immune signaling.

Structurally, Tripartite motif-containing protein 23 features a RING finger domain for E3 ligase activity, B-box and coiled-coil domains for dimerization, and a C-terminal ARF GAP domain. This antibody supports detailed analysis of TRIM23's regulatory roles in autophagy and innate immune signaling.

Application Notes

Optimal dilution of the TRIM23 antibody should be determined by the researcher.

Immunogen

E.coli-derived human TRIM23 recombinant protein (Position: E35-R406) was used as the immunogen for the TRIM23 antibody.

Storage

After reconstitution, the TRIM23 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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