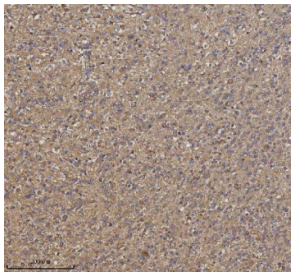
TRIM2 Antibody / Tripartite motif-containing protein 2 (FY12655)

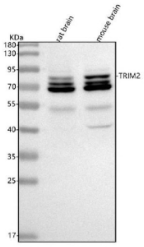
Catalog No.	Formulation	Size
FY12655	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

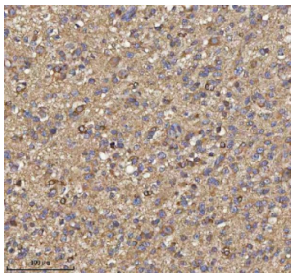
Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q9C040
Localization	Cytoplasm, Mitochondria, ER
Applications	Western Blot : 0.25-0.5ug/ml Immunohistochemistry : 2-5ug/ml ELISA : 0.1-0.5ug/ml
Limitations	This TRIM2 antibody is available for research use only.



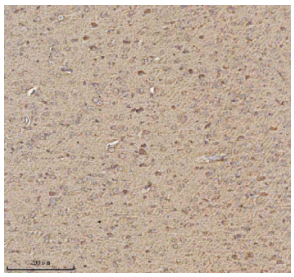
Immunohistochemical staining of TRIM2 using anti-TRIM2 antibody. TRIM2 was detected in a paraffin-embedded section of human glioblastoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-TRIM2 antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using an HRP secondary and DAB substrate.



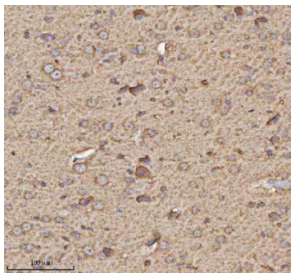
Western blot analysis of TRIM2 using anti-TRIM2 antibody. Lane 1: rat brain tissue lysates, Lane 2: mouse brain tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-TRIM2 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 enhanced chemiluminescent. Western blot analysis of TRIM32 using anti-TRIM32 antibody. A major band is observed at ~72 kDa corresponding to full-length TRIM32, along with additional higher- and lower-molecular-weight species consistent with reported post-translationally modified and processed forms of the protein.



Immunohistochemical staining of TRIM2 using anti-TRIM2 antibody. TRIM2 was detected in a paraffin-embedded section of human glioblastoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-TRIM2 antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using an HRP secondary and DAB substrate.



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Description

TRIM2 antibody detects Tripartite motif-containing protein 2, an E3 ubiquitin ligase that regulates neuronal cytoskeleton organization and axonal stability. TRIM2 belongs to the TRIM family of RING finger E3 ligases and mediates ubiquitination of neurofilament proteins and signaling regulators. The TRIM2 antibody is widely used in neuroscience, developmental, and cell biology research to study axon maintenance, neurodegeneration, and ubiquitin-mediated proteostasis.

TRIM2 is encoded by the TRIM2 gene located on human chromosome 4q31.3. The protein is approximately 744 amino acids long and contains a RING finger domain, two B-boxes, a coiled-coil region, and a C-terminal filamin-binding NHL repeat domain. TRIM2 localizes to axons, growth cones, and perinuclear regions, reflecting its role in neuronal trafficking and cytoskeletal regulation.

The TRIM2 antibody detects a 90 kilodalton band by western blot and reveals filamentous cytoplasmic staining under immunofluorescence microscopy. TRIM2 ubiquitinates neurofilament light chain (NEFL) to control filament organization

and turnover, maintaining axonal integrity and preventing neurodegenerative aggregation. It also regulates apoptosis by targeting proapoptotic proteins for degradation and interacts with signaling pathways involved in neuronal survival.

Mutations in TRIM2 cause hereditary axonal neuropathy and neurodegenerative disease characterized by axon swelling and degeneration. Dysregulation of TRIM2 expression has also been linked to gliomas and other cancers, where altered ubiquitination affects cytoskeletal dynamics and invasion. In developing neurons, TRIM2 coordinates cytoskeletal remodeling during axon guidance and branching.

Because of its key role in ubiquitin-mediated regulation of the neuronal cytoskeleton, TRIM2 serves as an essential molecule for understanding axonal maintenance and neuroprotection. NSJ Bioreagents provides a validated TRIM2 antibody optimized for its applications, supporting studies of ubiquitination, neurodevelopment, and axon integrity.

Application Notes

Optimal dilution of the TRIM2 antibody should be determined by the researcher.

Immunogen

E.coli-derived human TRIM2 recombinant protein (Position: Q78-E398) was used as the immunogen for the TRIM2 antibody.

Storage

After reconstitution, the TRIM2 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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