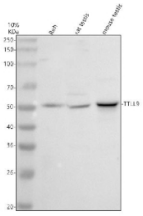
TTLL9 Antibody / Tubulin tyrosine ligase-like protein 9 (FY12070)

Catalog No.	Formulation	Size
FY12070	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	Q3SXZ7
Applications	Western Blot: 0.25-0.5ug/ml ELISA: 0.1-0.5ug/ml
Limitations	This TTLL9 antibody is available for research use only.



Western blot analysis of TTLL9 using anti-TTLL9 antibody. Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human REH whole cell lysates, Lane 2: rat testis tissue lysates, Lane 3: 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-TTLL9 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 specific band was detected for TTLL9 at approximately 51 kDa. The expected band size for TTLL9 is at 51 kDa.

Description

TTLL9 antibody detects Tubulin tyrosine ligase-like protein 9, encoded by the TTLL9 gene. Tubulin tyrosine ligase-like protein 9 is a member of the tubulin tyrosine ligase-like family of enzymes and is involved in post-translational modification of tubulin through polyglutamylation. TTLL9 antibody provides researchers with a reagent for studying

microtubule regulation, ciliary function, and neuronal biology.

Tubulin tyrosine ligase-like protein 9 belongs to a large family of enzymes that regulate tubulin side chain modifications. Research using TTLL9 antibody has shown that it catalyzes polyglutamylation of tubulin tails, a modification that regulates microtubule interactions with molecular motors and associated proteins. This modification is essential for the structural and functional diversity of the microtubule cytoskeleton.

Studies with TTLL9 antibody have demonstrated that polyglutamylation mediated by TTLL9 is critical for ciliary function and neuronal signaling. In cilia, TTLL9 activity regulates motility and sensory reception, while in neurons, it influences axonal transport and synaptic function. These findings underscore its broad importance in cellular physiology.

Dysfunction of Tubulin tyrosine ligase-like protein 9 has been linked to ciliopathies and neurological disease. Research using TTLL9 antibody has shown that defects in polyglutamylation cause impaired ciliary motility, sensory dysfunction, and neurodegeneration. In addition, altered TTLL9 activity has been observed in certain cancers, suggesting roles in proliferation and cytoskeletal regulation.

TTLL9 antibody is widely applied in immunofluorescence, western blotting, and immunohistochemistry. Immunofluorescence highlights modified microtubule arrays, western blotting quantifies expression across tissues, and immunohistochemistry demonstrates localization in brain and ciliated tissues. These applications make TTLL9 antibody indispensable in microtubule research.

By supplying validated TTLL9 antibody reagents, NSJ Bioreagents supports studies into tubulin modification, neuronal function, and ciliary biology. Detection of Tubulin tyrosine ligase-like protein 9 provides researchers with insight into how post-translational modification regulates microtubule diversity and disease.

Application Notes

Optimal dilution of the TTLL9 antibody should be determined by the researcher.

Immunogen

E.coli-derived human TTLL9 recombinant protein (Position: K36-S439) was used as the immunogen for the TTLL9 antibody.

Storage

After reconstitution, the TTLL9 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Copyright © NSJ Bioreagents. All rights reserved.