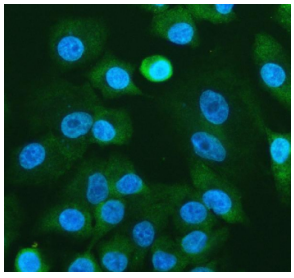
RPL24 Antibody / 60S ribosomal protein L24 (FY12905)

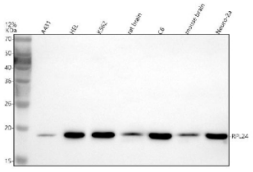
Catalog No.	Formulation	Size
FY12905	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

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	P83731
Localization	Cytoplasm
Applications	Western Blot : 0.25-0.5ug/ml Immunocytochemistry/Immunofluorescence : 5ug/ml ELISA : 0.1-0.5ug/ml
Limitations	This RPL24 antibody is available for research use only.



Immunofluorescent staining of RPL24 using anti-RPL24 antibody (green). RPL24 was detected in an immunocytochemical section of 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-RPL24 antibody overnight at 4oC. DyLight 488 Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37oC. The section was counterstained with DAPI nuclear stain (blue). Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Western blot analysis of RPL24 using anti-RPL24 antibody. Electrophoresis was performed on a 12% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human whole cell lysates, Lane 2: human HEL whole cell lysates, Lane 3: human 293T whole cell lysates, Lane 4: rat brain tissue lysates, Lane 5: rat C6 whole cell lysates, Lane 6: mouse brain tissue lysates, Lane 7: mouse Neuro-2a 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-RPL24 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 RPL24 at approximately 18 kDa. The expected molecular weight of RPL24 is ~18 kDa.

Description

RPL24 antibody detects 60S ribosomal protein L24, a structural component of the large ribosomal subunit essential for protein synthesis. Encoded by the RPL24 gene on chromosome 3p21.3, this ribosomal protein contributes to ribosome assembly, rRNA processing, and translation elongation. RPL24 participates in maintaining translational fidelity and efficiency, influencing cell growth, proliferation, and metabolic control.

Structurally, RPL24 is a 157-amino-acid protein of approximately 18 kilodaltons that forms part of the ribosomal 60S subunit. It is highly conserved across species and interacts with ribosomal RNA and neighboring proteins to stabilize the ribosomal architecture. RPL24 localizes predominantly to the cytoplasm and nucleolus, reflecting its dual role in ribosome biogenesis and cytoplasmic translation.

The RPL24 antibody is widely used in molecular biology, cancer research, and translational control studies to analyze ribosome composition, protein synthesis rates, and growth regulation. Western blot analysis identifies an 18 kilodalton band corresponding to RPL24, while immunofluorescence shows strong cytoplasmic and nucleolar localization. This antibody supports research examining how ribosomal proteins coordinate mRNA translation with cellular metabolism and proliferation.

Functionally, RPL24 promotes ribosome maturation by assisting in 28S rRNA folding and subunit joining. Reduced RPL24 expression impairs translation efficiency and causes growth defects, while overexpression supports rapid proliferation in tumor cells. Mutations in ribosomal proteins including RPL24 are associated with developmental syndromes and cancers characterized by deregulated protein synthesis. The RPL24 antibody provides a critical tool for studying ribosome biogenesis, translational regulation, and ribosomal stress responses. NSJ Bioreagents validates this antibody for its applications, ensuring accurate detection for studies of translation and growth control.

Application Notes

Optimal dilution of the RPL24 antibody should be determined by the researcher.

Immunogen

E.coli-derived human RPL24 recombinant protein (Position: M1-R157) was used as the immunogen for the RPL24 antibody.

Storage

After reconstitution, the RPL24 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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