RSL24D1 Antibody / Ribosomal L24 domain-containing protein 1 (FY13250)

Catalog No.	Formulation	Size
FY13250	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
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	Q9UHA3
Applications	Western Blot : 0.25-0.5ug/ml Immunocytochemistry : 5ug/ml Immunofluorescence : 5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This RSL24D1 antibody is available for research use only.

Description

RSL24D1 antibody detects Ribosomal L24 domain-containing protein 1, a nucleolar factor involved in ribosome biogenesis and pre-rRNA processing. The UniProt recommended name is Ribosomal L24 domain-containing protein 1 (RSL24D1). This protein plays a key role in the maturation of the large 60S ribosomal subunit and the assembly of functional ribosomes necessary for protein synthesis and cell growth.

Functionally, RSL24D1 antibody identifies a 332-amino-acid nucleolar protein that associates with preribosomal complexes during 60S subunit assembly. RSL24D1 interacts with rRNA intermediates and ribosomal proteins to facilitate cleavage and folding events required for ribosome maturation. It participates in the late steps of rRNA processing, ensuring proper incorporation of 28S rRNA into the large subunit. RSL24D1 is functionally conserved across eukaryotes, underscoring its central role in ribosome biogenesis.

The RSL24D1 gene is located on chromosome 15q25.2 and is expressed in proliferative tissues such as bone marrow, testis, and liver, where active ribosome production supports rapid cell growth. Expression levels correlate with

translational demand and are tightly controlled by growth factor and nutrient signaling pathways that regulate ribosome assembly.

Pathologically, dysregulation of RSL24D1 affects ribosomal homeostasis and has been linked to cancer and ribosomopathies. Overexpression promotes cell proliferation and is associated with tumor growth, while loss of function leads to impaired ribosome production and nucleolar stress. RSL24D1 interacts with tumor suppressor pathways, including p53 activation in response to ribosomal imbalance. Research using RSL24D1 antibody supports studies in translation regulation, cancer biology, and ribosome assembly mechanisms.

RSL24D1 antibody is validated for western blotting, immunofluorescence, and immunohistochemistry to detect nucleolar ribosome assembly proteins. NSJ Bioreagents provides RSL24D1 antibody reagents optimized for research in RNA processing, ribosome maturation, and cell proliferation control.

Structurally, Ribosomal L24 domain-containing protein 1 contains a conserved L24-like domain characteristic of large ribosomal subunit proteins, facilitating interactions with rRNA and assembly factors. Its C-terminal region mediates nucleolar localization and binding to preribosomal complexes. This antibody enables detailed investigation of RSL24D1's role in ribosome biogenesis, translational control, and cellular growth regulation.

Application Notes

Optimal dilution of the RSL24D1 antibody should be determined by the researcher.

Immunogen

E.coli-derived human RSL24D1 recombinant protein (Position: M1-P163) was used as the immunogen for the RSL24D1 antibody.

Storage

After reconstitution, the RSL24D1 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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