PWP1 Antibody / Periodic tryptophan protein 1 [clone 30P43] (FY13286)

Catalog No.	Formulation	Size
FY13286	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	30P43
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	Q13610
Applications	Western Blot : 1:500-1:2000
Limitations	This PWP1 antibody is available for research use only.

Description

PWP1 antibody detects Periodic tryptophan protein 1 homolog, encoded by the PWP1 gene. Periodic tryptophan protein 1 homolog is a nucleolar protein implicated in ribosome biogenesis and transcriptional regulation. PWP1 antibody provides researchers with an important tool to study ribosomal assembly, nucleolar function, and growth signaling.

Periodic tryptophan protein 1 homolog localizes predominantly to the nucleolus, where it interacts with ribosomal RNA processing factors. Research using PWP1 antibody has demonstrated that the protein supports maturation of 60S ribosomal subunits, ensuring proper assembly and export of ribosomes to the cytoplasm. Ribosome biogenesis is tightly linked to cellular growth and proliferation, making PWP1 essential for cell viability.

Studies with PWP1 antibody have revealed connections between the protein and growth signaling pathways such as mTOR. PWP1 integrates nutrient and growth factor signals with ribosome production, coordinating protein synthesis capacity with environmental conditions. Dysregulation of PWP1 disrupts this balance, impairing ribosomal biogenesis and cellular metabolism. This positions PWP1 at the crossroads of growth control and ribosome biology.

PWP1 has also been implicated in cancer biology. Research using PWP1 antibody has shown that overexpression supports tumor growth by enhancing ribosome biogenesis and protein synthesis. Elevated levels correlate with poor prognosis in cancers such as hepatocellular carcinoma and breast cancer. Conversely, depletion of PWP1 reduces proliferation and induces apoptosis, highlighting its potential as a therapeutic target.

PWP1 antibody is widely used in western blotting, immunohistochemistry, and immunofluorescence. Western blotting confirms nucleolar expression, immunohistochemistry reveals enrichment in proliferative tissues, and immunofluorescence highlights nucleolar localization. These applications make PWP1 antibody valuable in studies of nucleolar biology and cancer research.

By supplying validated PWP1 antibody reagents, NSJ Bioreagents supports research into ribosome biogenesis, nucleolar function, and tumor biology. Detection of Periodic tryptophan protein 1 homolog allows researchers to investigate how nucleolar proteins regulate cell growth and disease.

Application Notes

Optimal dilution of the PWP1 antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human PWP1 was used as the immunogen for the PWP1 antibody.

Storage

Store the PWP1 antibody at -20oC.