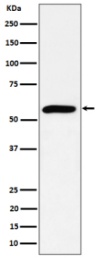
PRPF4 Antibody / Pre mRNA processing factor 4 [clone 30P52] (FY12354)

Catalog No.	Formulation	Size
FY12354	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
Format	Liquid
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	30P52
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	O43172
Applications	Western Blot : 1:500-1:2000 Immunohistochemistry : 1:50-1:200 Immunocytochemistry/Immunofluorescence : 1:50-1:200 Immunoprecipitation : 1:50 Flow Cytometry : 1:50
Limitations	This PRPF4 antibody is available for research use only.



Western blot analysis of PRPF4 expression in HeLa cell lysate using PRPF4 antibody. Predicted molecular weight ~58 kDa.

Description

PRPF4 antibody recognizes pre mRNA processing factor 4, a nuclear protein essential for spliceosome assembly and pre

mRNA splicing. PRPF4 is a component of the U4 and U6 small nuclear ribonucleoproteins and is required for the formation of the U4 or U6 U5 tri small nuclear ribonucleoprotein complex. This complex is indispensable for pre mRNA splicing, a fundamental process that ensures accurate removal of introns and joining of exons to produce mature messenger RNA.

PRPF4 antibody is highly relevant for studies of gene expression regulation and RNA biology. By detecting PRPF4, researchers can investigate how spliceosome components assemble and how splicing is regulated under different physiological conditions. Disruption of PRPF4 function impairs RNA processing and leads to widespread changes in gene expression, highlighting its importance in cell biology.

The antibody is suitable for western blotting, immunohistochemistry, immunofluorescence, and other molecular biology applications. In western blot assays, PRPF4 antibody recognizes nuclear protein bands, confirming expression across tissue and cell samples. Immunohistochemistry provides tissue localization, often highlighting nuclear distribution in actively transcribing cells. Immunofluorescence further resolves subnuclear localization and colocalization with other spliceosomal proteins.

Mutations in PRPF4 are linked to retinitis pigmentosa, a degenerative retinal disorder characterized by progressive vision loss. This connection underscores the physiological importance of splicing factors beyond general RNA metabolism. PRPF4 antibody therefore provides a valuable reagent for studies of inherited retinal disease as well as broader investigations of splicing related disorders.

Splicing dysregulation is also increasingly recognized in cancer and neurodegeneration. Aberrant splicing contributes to oncogenic transformation, resistance to therapy, and progression of neurodegenerative diseases. Detecting PRPF4 expression with specific antibodies enables researchers to connect splicing factor function with disease mechanisms and to evaluate therapeutic interventions targeting the spliceosome.

PRPF4 antibody from NSJ Bioreagents offers strong performance across assay types, ensuring accurate detection of this critical spliceosomal protein. It is a powerful tool for molecular biology, disease research, and therapeutic development focused on RNA regulation.

Application Notes

Optimal dilution of the PRPF4 antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human PRPF4 was used as the immunogen for the PRPF4 antibody.

Storage

Store the PRPF4 antibody at -20oC.