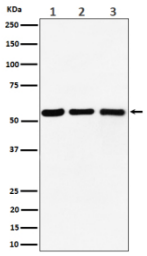
PRPF4 Antibody / Pre mRNA processing factor 4 [clone 30P60] (FY12553)

Catalog No.	Formulation	Size
FY12553	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
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	30P60
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
Limitations	This PRPF4 antibody is available for research use only.



Western blot analysis of PRPF4 expression in (1) human Raji cell lysate; (2) mouse RAW264.7 cell lysate; (3) rat C6 cell lysate. Predicted molecular weight ~58 kDa.

Description

PRPF4 antibody detects pre mRNA processing factor 4, a spliceosome associated protein encoded by the PRPF4 gene. PRPF4 is a component of the U4/U6.U5 tri snRNP complex, which is required for pre mRNA splicing. By stabilizing

interactions between snRNPs, PRPF4 contributes to spliceosome assembly and catalytic activation. This function makes PRPF4 essential for gene expression and RNA processing in all eukaryotic cells.

PRPF4 antibody is widely used in molecular biology and genetic research. Mutations in PRPF4 are linked to retinitis pigmentosa, a degenerative eye disease characterized by progressive photoreceptor loss. By detecting PRPF4, researchers can study the molecular basis of splicing related diseases and investigate how splicing defects cause tissue specific pathology despite the ubiquitous nature of the spliceosome.

In western blot assays, a PRPF4 antibody detects protein bands of the expected size in nuclear extracts. Immunohistochemistry reveals PRPF4 expression in retina and other tissues, while immunofluorescence highlights nuclear localization in splicing speckles. These applications support detailed study of spliceosomal proteins in cells and tissues.

PRPF4 is critical for RNA splicing fidelity and gene expression regulation. Disruption of PRPF4 function alters transcriptome diversity and contributes to developmental abnormalities. Its role in retinitis pigmentosa underscores the importance of splicing factors in specialized tissues such as retina. By applying PRPF4 antibody, scientists can explore how mutations affect splicing and develop potential therapeutic strategies to restore RNA processing.

PRPF4 also interacts with kinases and other splicing regulators, linking it to signaling pathways that modulate spliceosome dynamics. These interactions suggest broader roles for PRPF4 in cell cycle control and stress responses. As a result, PRPF4 antibody is valuable for investigating how splicing integrates with cellular physiology.

PRPF4 antibody from NSJ Bioreagents provides strong specificity for studying spliceosomal function and RNA processing. Its proven reliability across applications ensures accurate detection of this essential splicing factor in basic and disease related research.

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.