

# PPP1R8 Antibody / Protein phosphatase 1 regulatory subunit 8 (FY12457)

Catalog No.	Formulation	Size
FY12457	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	Q12972
Applications	Western Blot: 0.25-0.5ug/ml Immunohistochemistry: 2-5ug/ml Immunocytochemistry/Immunofluorescence: 5ug/ml Immunofluorescence: 5ug/ml Flow Cytometry: 1-3ug/million cells ELISA: 0.1-0.5ug/ml
Limitations	This PPP1R8 antibody is available for research use only.

## **Description**

PPP1R8 antibody detects Protein phosphatase 1 regulatory subunit 8, also known as Nuclear inhibitor of protein phosphatase-1 (NIPP1), a multifunctional nuclear protein that regulates the activity of protein phosphatase 1 (PP1). PPP1R8 modulates pre-mRNA splicing, transcription, and DNA damage responses through its interaction with PP1 catalytic subunits and RNA-binding proteins. The PPP1R8 antibody is a valuable tool for investigating phosphatase regulation, RNA processing, and nuclear signaling pathways associated with gene expression and chromatin remodeling.

PPP1R8 is encoded by the PPP1R8 gene on human chromosome 1p35.1. The protein contains a central PP1-binding motif (RVXF) that mediates association with PP1, a forkhead-associated (FHA) domain involved in phosphoprotein recognition, and a nuclear localization signal. PPP1R8 functions as both an inhibitor and targeting subunit of PP1, directing its activity toward specific nuclear substrates such as splicing factors and transcriptional regulators. It also participates in the regulation of cell cycle progression and DNA replication by modulating the phosphorylation state of histones and replication proteins.

Studies using the PPP1R8 antibody have shown that the protein localizes predominantly to the nucleus, with strong accumulation in speckle-like structures associated with RNA splicing. Western blot analysis typically detects bands near 35–40 kDa corresponding to the primary isoform, although multiple splice variants exist. PPP1R8 interacts with CDC5L, SNW1, and other components of the spliceosome complex, underscoring its integral role in pre-mRNA processing. In addition to RNA metabolism, PPP1R8 regulates transcription by interacting with Polycomb repressive complex proteins and influencing histone methylation states.

Functionally, PPP1R8 acts as a checkpoint in cellular stress responses and may modulate signaling cascades involving Akt and MAP kinases. Dysregulation has been implicated in cancer and neurodegenerative disorders through its impact on protein phosphorylation balance and gene expression. NSJ Bioreagents provides a validated PPP1R8 antibody optimized for western blot, immunofluorescence, and immunohistochemistry, supporting detailed investigation of PP1 regulation, splicing control, and nuclear phosphoprotein networks.

#### **Application Notes**

Optimal dilution of the PPP1R8 antibody should be determined by the researcher.

### **Immunogen**

E.coli-derived human PPP1R8 recombinant protein (Position: L27-N312) was used as the immunogen for the PPP1R8 antibody.

#### **Storage**

After reconstitution, the PPP1R8 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.