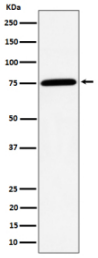
PPM1G Antibody / Protein phosphatase Mg2+/Mn2+ dependent 1G [clone 30P06] (FY12189)

Catalog No.	Formulation	Size
FY12189	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, Rat
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	30P06
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	O15355
Applications	Western blot: 1:500-1:2000 Immunohistochemistry: 1:50-1:200 Immunocytochemistry/Immunofluorescence: 1:50-1:200 Flow Cytometry: 1:50
Limitations	This PPM1G antibody is available for research use only.



Western blot analysis of PPM1G expression in human Jurkat cell lysate using PPM1G antibody. Predicted molecular weight ~59 kDa, commonly observed at 59-75 kDa.

Description

PPM1G antibody detects protein phosphatase, Mg2+/Mn2+ dependent 1G, a member of the PP2C family of serine/threonine phosphatases. PPM1G is a nuclear-localized enzyme that regulates pre-mRNA splicing, chromatin remodeling, and DNA damage responses. By dephosphorylating specific substrates, PPM1G ensures proper assembly of the spliceosome and contributes to transcriptional control.

Research using PPM1G antibody has demonstrated the enzyme's significance in cell cycle regulation and genome stability. PPM1G participates in the DNA damage response by dephosphorylating gamma-H2AX, a key histone mark of double-strand breaks. This activity supports checkpoint recovery and restoration of normal transcription after DNA repair. In addition, PPM1G regulates the phosphorylation status of spliceosomal proteins, influencing alternative splicing decisions critical for development and stress adaptation.

PPM1G has been studied in cancer, where its overexpression promotes survival of tumor cells by modulating DNA repair and splicing pathways. Aberrant activity may enable oncogenic transcript variants or resistance to DNA-damaging therapies. Conversely, reduced PPM1G function can impair cell survival under stress, underscoring its context-dependent roles in disease. In neurobiology, altered expression of PPM1G has been linked to synaptic signaling and cognitive function, connecting phosphatase activity to brain health.

Antibodies against PPM1G are validated for western blot, immunohistochemistry, immunofluorescence, and immunoprecipitation. These reagents allow researchers to monitor nuclear localization, assess changes in expression, and study interactions with chromatin-associated proteins. Clone-based antibodies provide the specificity needed to distinguish PPM1G from other PP2C family members.

NSJ Bioreagents supplies this PPM1G antibody to support studies in splicing regulation, DNA repair, and cancer biology.

Application Notes

Optimal dilution of the PPM1G antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human PPM1G was used as the immunogen for the PPM1G antibody.

Storage

Store the PPM1G antibody at -20oC.

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