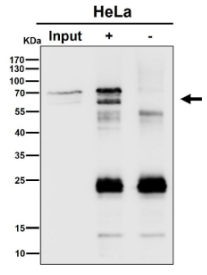
PPP2R5D Antibody / Protein phosphatase 2 regulatory subunit B delta [clone 30P07] (FY12749)

Catalog No.	Formulation	Size
FY12749	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

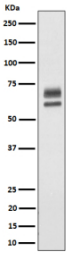
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	30P07
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	Q14738
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 PPP2R5D antibody is available for research use only.



Immunoprecipitation analysis using the antibody at 1:50 dilution. Western blot at 1:1000 dilution. Major bands are observed near 60 kDa and 70 kDa, with the upper species appearing as a doublet, consistent with phosphorylated and unmodified forms of PPP2R5D (predicted ~66 kDa).



Western blot analysis of PPP2R5D expression in human HeLa cell lysate. Major bands are observed near 60 kDa and 70 kDa, with the upper species appearing as a doublet, consistent with phosphorylated and unmodified forms of PPP2R5D (predicted ~66 kDa).

Description

PPP2R5D antibody detects protein phosphatase 2 regulatory subunit B delta, encoded by the PPP2R5D gene. This protein is also known as PP2A B56 delta, phosphatase 2A regulatory subunit PPP2R5D, and serine threonine phosphatase 2A B56 delta. PP2A is one of the major cellular serine threonine phosphatases, regulating cell cycle progression, DNA replication, apoptosis, and signal transduction. The PP2A holoenzyme is composed of a catalytic C subunit, a scaffolding A subunit, and a regulatory B subunit. PPP2R5D belongs to the B56 family of regulatory subunits that direct PP2A activity toward specific substrates and cellular compartments.

PPP2R5D antibody is widely applied in neuroscience, developmental biology, and cancer research. Mutations in PPP2R5D cause neurodevelopmental disorders characterized by intellectual disability, hypotonia, macrocephaly, and autism spectrum features. By detecting PPP2R5D, researchers can study how alterations in PP2A signaling contribute to brain development and cognitive function. In cancer biology, PP2A acts as a tumor suppressor, and dysregulation of its regulatory subunits can promote oncogenesis.

PPP2R5D directs PP2A activity toward key regulators such as Akt, MAPK, and MYC, influencing pathways that control proliferation and apoptosis. The antibody supports studies into how these signaling cascades are altered by mutations or changes in expression. Detection of PPP2R5D provides insight into phosphatase signaling networks that are otherwise difficult to measure directly.

Western blot assays detect PPP2R5D protein in neuronal and cancer cell lysates. Immunohistochemistry maps tissue expression in brain, liver, and tumors. Immunofluorescence highlights nuclear or cytoplasmic localization depending on signaling context. These tools provide comprehensive approaches for studying PP2A regulation.

PPP2R5D is implicated in rare genetic disorders grouped as PPP2R5D related neurodevelopmental syndromes. These conditions result from de novo mutations and highlight the critical role of PP2A signaling in neurodevelopment. By using PPP2R5D antibody, scientists can explore genotype phenotype correlations and mechanisms underlying disease pathology.

In oncology, dysregulated PP2A contributes to leukemia, breast cancer, and colorectal cancer. Altered expression of regulatory subunits like PPP2R5D changes phosphatase balance, leading to sustained oncogenic signaling. Therapeutic strategies are exploring reactivation of PP2A complexes as a tumor suppressor approach. PPP2R5D antibody therefore supports both mechanistic studies and translational drug development.

PPP2R5D antibody from NSJ Bioreagents provides strong specificity for this regulatory subunit. Its proven performance ensures accurate study of PP2A signaling networks across neuroscience, developmental biology, and cancer fields.

Application Notes

Optimal dilution of the PPP2R5D antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human PPP2R5D was used as the immunogen for the PPP2R5D antibody.

Storage

Store the PPP2R5D antibody at -20oC.