

Protein Phosphatase 4C Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP52663

Specification

Protein Phosphatase 4C Antibody - Product Information

Application	WB, ICC, IHC
Primary Accession	P60510
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2a
Calculated MW	34 KDa

Protein Phosphatase 4C Antibody - Additional Information

Gene ID 5531

Other Names

PP X;PP-X;PP4;PP4C;PP4C;PP4C_HUMAN;PPH3;PPP4;ppp4c;PPX;protein phosphatase 4 (formerly X), catalytic subunit;Protein phosphatase 4 catalytic subunit;Protein phosphatase X; Protein phosphatase X;protein phosphatase X, catalytic subunit;Serine/threonine protein phosphatase 4 catalytic subunit;Serine/threonine-protein phosphatase 4 catalytic subunit.

Dilution

WB~~1:200

ICC~~1:200

IHC~~1:100

Format

Purified mouse monoclonal in PBS(pH 7.4) containing with 0.09% (W/V) sodium azide and 50% glycerol.

Storage

Store at -20 °C.Stable for 12 months from date of receipt

Protein Phosphatase 4C Antibody - Protein Information

Name PPP4C

Synonyms PPP4, PPX

Function

Protein phosphatase that is involved in many processes such as microtubule organization at centrosomes, maturation of spliceosomal snRNPs, apoptosis, DNA repair, tumor necrosis factor (TNF)-alpha signaling, activation of c-Jun N-terminal kinase MAPK8, regulation of histone acetylation, DNA damage checkpoint signaling, NF-kappa-B activation and cell migration. The PPP4C-PPP4R1 PP4 complex may play a role in dephosphorylation and regulation of HDAC3. The

PPP4C-PPP4R2- PPP4R3A PP4 complex specifically dephosphorylates H2AX phosphorylated on Ser-140 (gamma-H2AX) generated during DNA replication and required for DNA double strand break repair. Dephosphorylates NDEL1 at CDK1 phosphorylation sites and negatively regulates CDK1 activity in interphase (By similarity). In response to DNA damage, catalyzes RPA2 dephosphorylation, an essential step for DNA repair since it allows the efficient RPA2-mediated recruitment of RAD51 to chromatin.

Cellular Location

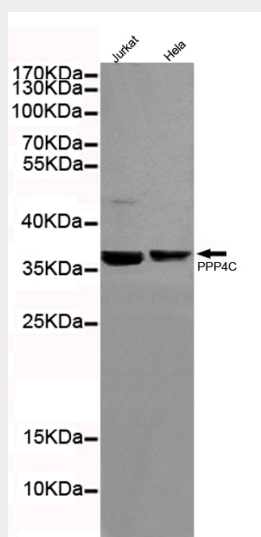
Cytoplasm. Nucleus. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome

Protein Phosphatase 4C Antibody - Protocols

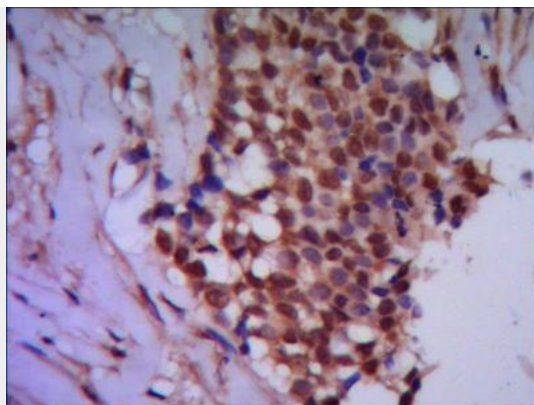
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

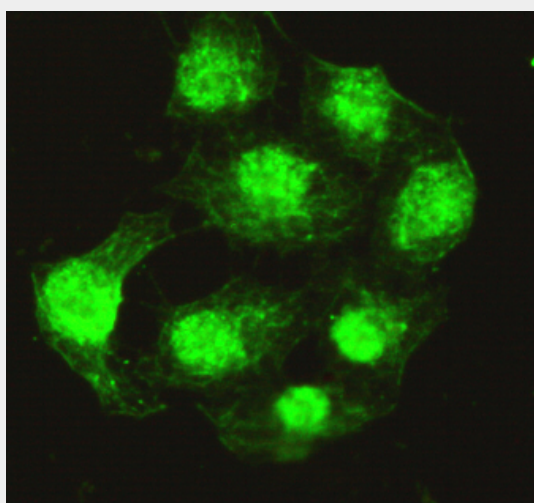
Protein Phosphatase 4C Antibody - Images



Western blot detection of Protein Phosphatase 4C in HeLa and Jurkat cell lysates using Protein Phosphatase 4C mouse mAb (1:200 diluted). Predicted band size: 34KDa. Observed band size: 34KDa.



IHC of paraffin-embedded human breast cancer using anti-Protein Phosphatase 4C mouse mAb diluted 1/500-1/1000.



Immunocytochemistry of HeLa cells using anti-Protein Phosphatase 4C mouse mAb diluted 1:200.

Protein Phosphatase 4C Antibody - Background

Protein phosphatase that is involved in many processes such as microtubule organization at centrosomes, maturation of spliceosomal snRNPs, apoptosis, DNA repair, tumor necrosis factor (TNF)-alpha signaling, activation of c-Jun N-terminal kinase MAPK8, regulation of histone acetylation, DNA damage checkpoint signaling, NF-kappa-B activation and cell migration. The PPP4C- PPP4R1 PP4 complex may play a role in dephosphorylation and regulation of HDAC3. The PPP4C-PPP4R2-PPP4R3A PP4 complex specifically dephosphorylates H2AFX phosphorylated on Ser-140 (gamma-H2AFX) generated during DNA replication and required for DNA double strand break repair. Dephosphorylates NDEL1 at CDK1 phosphorylation sites and negatively regulates CDK1 activity in interphase (By similarity). In response to DNA damage, catalyzes RPA2 dephosphorylation, an essential step for DNA repair since it allows the efficient RPA2-mediated recruitment of RAD51 to chromatin.

Protein Phosphatase 4C Antibody - References

Brewis N.D.,et al.Biochim. Biophys. Acta 1171:231-233(1992).
Cohen P.T.W.,et al.Submitted (DEC-1998) to the EMBL/GenBank/DBJ databases.
Hu M.C.-T.,et al.J. Biol. Chem. 273:33561-33565(1998).
Zhou G.,et al.J. Biol. Chem. 277:6391-6398(2002).
Mourtada-Maarabouni M.,et al.Cell Death Differ. 10:1016-1024(2003).