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PPP6C Antibody (C-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8477b

Specification

PPP6C Antibody (C-term) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	O00743
Other Accession	Q64620, Q9CQR6
Reactivity	**Human**
Predicted	**Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**275-305**

PPP6C Antibody (C-term) - Additional Information

Gene ID 5537

Other Names
Serine/threonine-protein phosphatase 6 catalytic subunit, PP6C, Serine/threonine-protein phosphatase 6 catalytic subunit, N-terminally processed, PPP6C, PPP6

Target/Specificity
This PPP6C antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 275-305 amino acids from the C-terminal region of human PPP6C.

Dilution
WB~~1:1000
IHC-P~~1:50~100

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
PPP6C Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

PPP6C Antibody (C-term) - Protein Information

Name PPP6C {ECO:0000303|PubMed:29053956, ECO:0000312|HGNC:HGNC:9323}

Function Catalytic subunit of protein phosphatase 6 (PP6) (PubMed:17079228, PubMed:29053956, PubMed:32474700). PP6 is a component of a signaling pathway regulating cell cycle progression in response to IL2 receptor stimulation (PubMed:10227379). N-terminal domain restricts G1 to S phase progression in cancer cells, in part through control of cyclin D1 (PubMed:17568194). During mitosis, regulates spindle positioning (PubMed:27335426). Down-regulates MAP3K7 kinase activation of the IL1 signaling pathway by dephosphorylation of MAP3K7 (PubMed:17079228). Participates also in the innate immune defense against viruses by desphosphorylating RIGI, an essential step that triggers RIGI-mediated signaling activation (PubMed:29053956). Also regulates innate immunity by acting as a negative regulator of the cGAS-STING pathway: mediates dephosphorylation and inactivation of CGAS and STING1 (PubMed:32753499, PubMed:32474700). CGAS dephosphorylation at 'Ser-435' impairs its ability to bind GTP, thereby inactivating it (PubMed:32474700).

Cellular Location
Mitochondrion. Cytoplasm

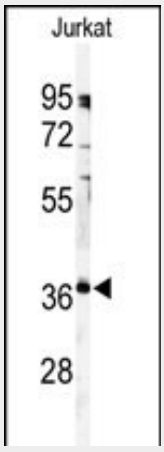
Tissue Location
Ubiquitously expressed in all tissues tested with highest expression levels in testis, heart, kidney, brain, stomach, liver and skeletal muscle and lowest in placenta, lung colon and spleen.

PPP6C Antibody (C-term) - Protocols

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

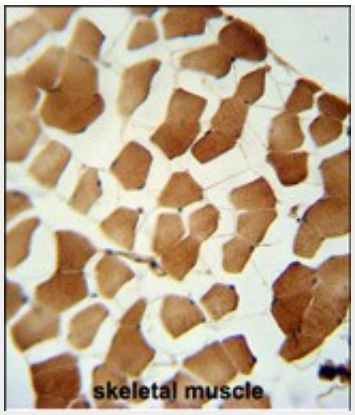
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

PPP6C Antibody (C-term) - Images



Western blot analysis of anti-PPP6C Antibody (C-term) (Cat.#AP8477b) in Jurkat cell line lysates (35ug/lane). PPP6C(arrow) was detected using the purified Pab.

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PPP6C Antibody (C-term) (Cat.#AP8477b) immunohistochemistry analysis in formalin fixed and paraffin embedded human skeletal muscle followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the PPP6C Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

PPP6C Antibody (C-term) - Background

PPP6C belongs to the PPP phosphatase family, PP-V subfamily. Reversible phosphorylation of proteins on serine and threonine residues is an important biochemical event that regulates a broad variety of intracellular processes. The phosphorylation state is determined by the well-controlled balance of activities of serine/threonine-specific protein kinases and protein phosphatases, including PPP6C. Expression levels are highest in testis, heart, and skeletal muscle and lowest in placenta, lung, and kidney. PPP6C can complement mutations in the S. cerevisiae Sit4 and S. pombe ppe1 genes, indicating that PPP6C is the functional homolog of yeast Sit4p and ppe1. Since Sit4p is required for the G1 to S transition of the cell cycle and ppe1 is involved in cell shape control and mitotic division, it has been suggested that PPP6C functions in cell cycle regulation.

PPP6C Antibody (C-term) - References

Yang, J., et al., EMBO J. 24(1):1-10 (2005).
Zhou, G., et al., J. Biol. Chem. 279(45):46595-46605 (2004).
Huang, S., et al., J. Biol. Chem. 279(35):36490-36496 (2004).
Swingle, M.R., et al., J. Biol. Chem. 279(32):33992-33999 (2004).
Wechsler, T., et al., Proc. Natl. Acad. Sci. U.S.A. 101(5):1247-1252 (2004).

PPP6C Antibody (C-term) - Citations

- Greatwall-phosphorylated Endosulfine is both an inhibitor and a substrate of PP2A-B55 heterotrimers.