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PPP6C Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14562b

Product Information

Application	WB, E
Primary Accession	O00743
Other Accession	Q64620, Q9CQR6, NP_001116841.1, NP_002712.1
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34524
Calculated MW	35144
Antigen Region	264-293

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 264-293 amino acids from the C-terminal region of human PPP6C.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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.

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). Also participates 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:32474700, PubMed:32753499). 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.

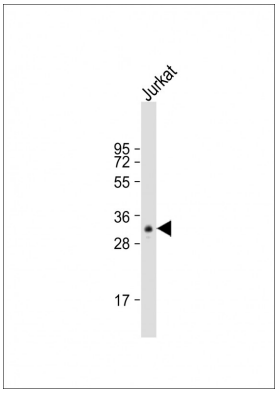
Background

This gene encodes the catalytic subunit of protein phosphatase, a component of a signaling pathway regulating cell cycle progression. Splice variants encoding different protein isoforms exist. The pseudogene of this gene is located on chromosome X.

References

Douglas, P., et al. Mol. Cell. Biol. 30(6):1368-1381(2010)
Dema, B., et al. Genes Immun. 10(7):659-661(2009)
Morales-Johansson, H., et al. PLoS ONE 4 (7), E6331 (2009) :
Mi, J., et al. PLoS ONE 4 (2), E4395 (2009) :
Stefansson, B., et al. Biochemistry 47(5):1442-1451(2008)

Images



Anti-PPP6C Antibody (C-term) at 1:1000 dilution + Jurkat whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 35 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

PPP6C Antibody (C-term) (Cat. #AP14562b) western blot analysis in 293 cell line lysates (35ug/lane).This demonstrates the PPP6C antibody detected the PPP6C protein (arrow).