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PPP6C Antibody

Rabbit mAb
Catalog # AP92757

Product Information

Application	WB, IF, FC, ICC
Primary Accession	O00743
Reactivity	Human
Clonality	Monoclonal
Other Names	PP6; PP6C; PPP6; Ppp6c;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	35144

Additional Information

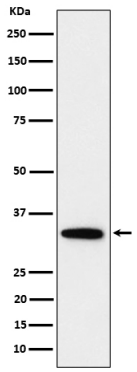
Dilution	WB 1:500~1:2000 ICC/IF 1:50~1:200 FC 1:50
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human PPP6C
Description	Catalytic subunit of protein phospatase 6 (PP6). PP6 is a component of a signaling pathway regulating cell cycle progression in response to IL2 receptor stimulation.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

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.

Images



Western blot analysis of PPP6C expression in HeLa cell lysate.