
Product Name: PP1C alpha/beta Rabbit Monoclonal Antibody**Catalog #: AMRe02464**

For research use only.

Summary

Description	Recombinant rabbit monoclonal antibody
Host	Rabbit
Application	WB,IHC,IP
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Monoclonal
Form	Liquid
Concentration	0.54mg/ml. The concentration of this product may be batch-dependent.
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% protective protein
Purification	Affinity Purification

Application

Dilution Ratio	WB 1:500-1:1000,IHC 1:50-1:100,IP 1:20-1:50
Molecular Weight	Calculated MW: 38 kDa; Observed MW: 38 kDa

Antigen Information

Gene Name	PPP1CA Alpha isoform serine threonine protein phosphatase PP1alpha 1 catalytic subunit; Catalytic subunit; PP1A; PP1A_HUMAN; PP1alpha; PP2C ALPHA; PP2CA; Ppp1ca; Protein Phosphatase
Alternative Names	2C Alpha Isoform; Serine threonine protein phosphatase PP1 alpha catalytic subunit; Serine threonine protein phosphatase PP1 alpha catalytic subunit protein phosphatase 1; Serine/threonine-protein phosphatase PP1-alpha catalytic subunit.
Gene ID	5499
SwissProt ID	P62136
Immunogen	A synthetic peptide of human PPP1CA+PPP1CB

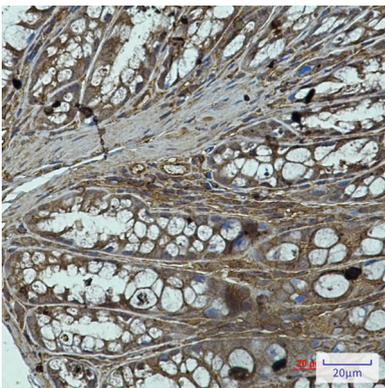
Background

Protein phosphatase that associates with over 200 regulatory proteins to form highly specific holoenzymes which dephosphorylate hundreds of biological targets. Protein phosphatase 1 (PP1) is essential for cell division, and participates in the regulation of glycogen metabolism, muscle contractility and protein synthesis. Involved in regulation of ionic conductances and long-term synaptic plasticity. May play an important role in dephosphorylating substrates such as the postsynaptic density-associated Ca²⁺/calmodulin dependent protein kinase II. Component of the PTW/PP1 phosphatase complex, which plays a role in the control of chromatin structure and cell cycle progression during the transition from mitosis into interphase. Regulates NEK2 function in terms of kinase activity and centrosome number and splitting, both in the presence and absence of radiation-induced DNA damage. Regulator of neural tube and optic fissure closure, and enteric neural crest cell (ENCCs) migration during development. In balance with CSNK1D and CSNK1E, determines the circadian period length, through the regulation of the speed and rhythmicity of PER1 and PER2 phosphorylation. May dephosphorylate CSNK1D and CSNK1E. Dephosphorylates the 'Ser-418' residue of FOXP3 in regulatory T-cells (Treg) from patients with rheumatoid arthritis, thereby inactivating FOXP3 and rendering Treg cells functionally defective (PubMed:23396208). Dephosphorylates CENPA (PubMed:25556658). Dephosphorylates the 'Ser-139' residue of ATG16L1 causing dissociation of ATG12-ATG5-ATG16L1 complex, thereby inhibiting autophagy (PubMed:26083323).

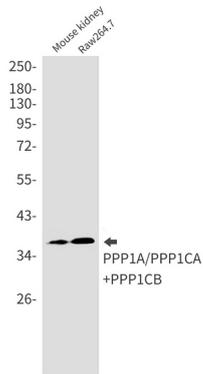
Research Area

Signal Transduction

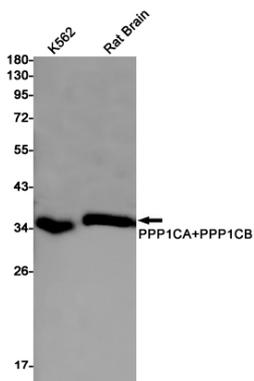
Image Data



Immunohistochemistry analysis of paraffin-embedded mouse colon using PP1C alpha/beta antibody. High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.



Western blot analysis of PPP1A/PPP1CA+PPP1CB in mouse kidney, Raw264.7 lysates using PPP1A/PPP1CA+PPP1CB antibody.



Western blot analysis of PPP1CA+PPP1CB in K562, rat Brain lysates using PPP1CA+PPP1CB antibody