



PPP1A mouse mAb

Catalog No	YP-Ab-14209
Isotype	IgG
Reactivity	Human
Applications	WB;IHC;ICC
Gene Name	ppp1ca
Immunogen	Purified recombinant human PPP1A protein fragments expressed in E.coli.
Specificity	This antibody detects endogenous levels of PPP1A and does not cross-react with related proteins.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Monoclonal, Mouse
Purification	The antibody was affinity-purified from mouse ascites by affinity-chromatography using epitope-specific immunogen.
Dilution	wb 1:1000 icc 1:300
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	EC:3.1.3.16;PP 1A;PP-1A;PPP1A;Serine/threonine-protein phosphatase PP1-alpha catalytic;PP1α;ppp1ca;Alpha isoform serine threonine protein phosphatase PP1alpha 1 catalytic subunit;Catalytic subunit;EC 3.1.3.16;MGC15877;MGC1674;PP1A;PP1A_HUMAN;PP1alpha;PP2C ALPHA;PP2CA;Protein Phosphatase 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.
Observed Band	38kD
Calculated Molecular Weight	38kD
Cell Pathway	Cytoplasm . Nucleus . Nucleus, nucleoplasm . Nucleus, nucleolus . Primarily nuclear and largely excluded from the nucleolus. Highly mobile in cells and can be relocalized through interaction with targeting subunits. NOM1 plays a role in targeting this protein to the nucleolus. In the presence of PPP1R8 relocalizes from the nucleus to nuclear speckles. Shuttles toward the cytosol during infection with VEEV (PubMed:29769351). .
Tissue Specificity	Colon carcinoma,Liver,Lung,Muscle,Pancreas,Placenta,Platele

**Function**

catalytic activity:A phosphoprotein + H(2)O = a protein + phosphate.,caution:The sequence shown here is derived from an Ensembl automatic analysis pipeline and should be considered as preliminary data.,cofactor:Binds 1 iron ion per subunit.,cofactor:Binds 1 manganese ion per subunit.,enzyme regulation:The phosphatase activity of the PPP1R15A-PP1 complex toward EIF2S1 is specifically inhibited by Salubrinal, a drug that protects cells from endoplasmic reticulum stress.,function: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 Ca(2+)/calmodulin dependent protein kinase II.,online information:The th

Background

The protein encoded by this gene is one of the three catalytic subunits of protein phosphatase 1 (PP1). PP1 is a serine/threonine specific protein phosphatase known to be involved in the regulation of a variety of cellular processes, such as cell division, glycogen metabolism, muscle contractility, protein synthesis, and HIV-1 viral transcription. Increased PP1 activity has been observed in the end stage of heart failure. Studies in both human and mice suggest that PP1 is an important regulator of cardiac function. Mouse studies also suggest that PP1 functions as a suppressor of learning and memory. Three alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008],

matters needing attention

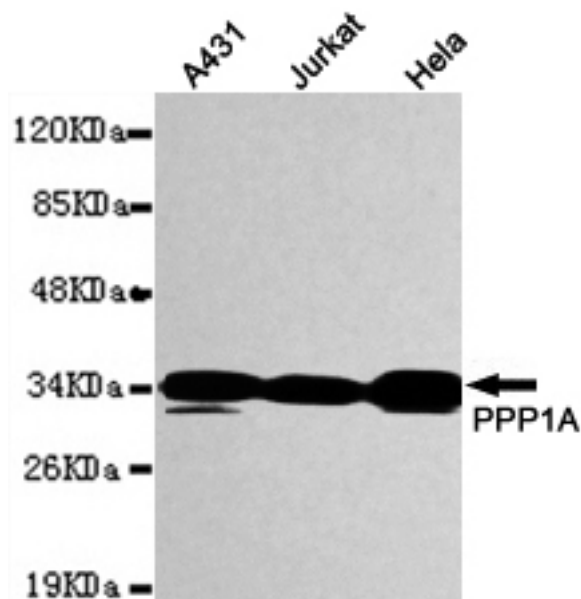
Avoid repeated freezing and thawing!

Usage suggestions

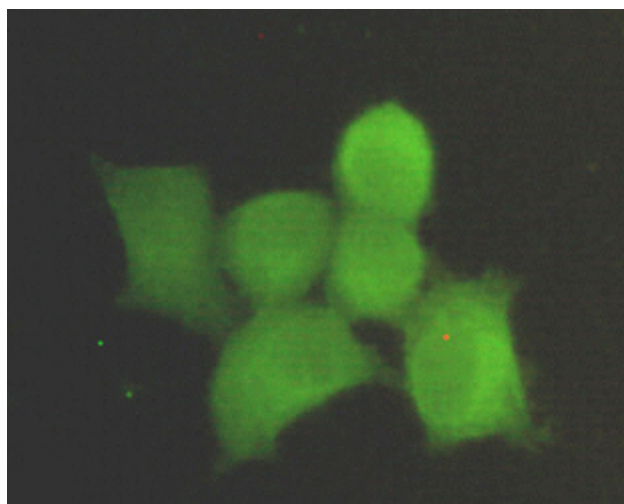
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



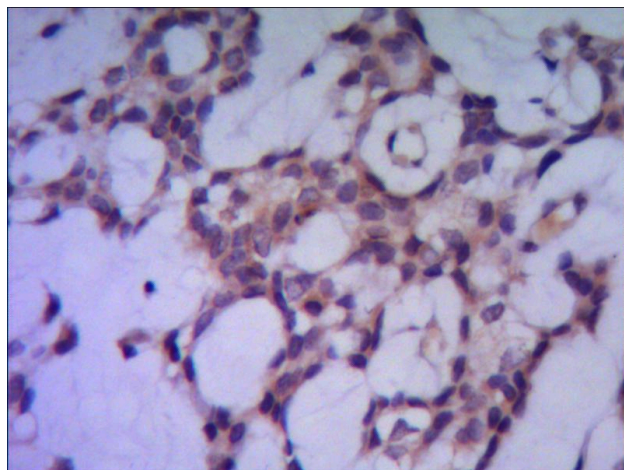
Products Images



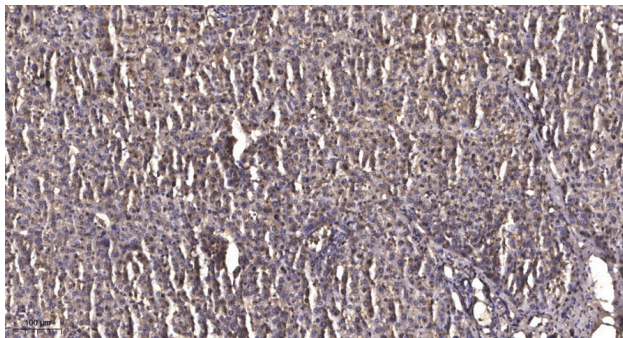
Western blot detection of PPP1A in MCF7, K562, HeLa, HEPG2 and Jurkat whole cell lysates using PPP1A mouse mAb (1:1000 diluted). Predicted band size: 38KDa. Observed band size: 38KDa.



Immunocytochemistry stain of HeLa using PPP1A mouse mAb (1:300).



IHC of paraffin-embedded human breast cancer using anti-PPP1A mouse mAb diluted 1/500-1/1000.



Immunohistochemical analysis of paraffin-embedded human liver cancer. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA, pH9.0 was used for antigen retrieval. 3, Secondary antibody was diluted at 1:200(room temperature, 45min).