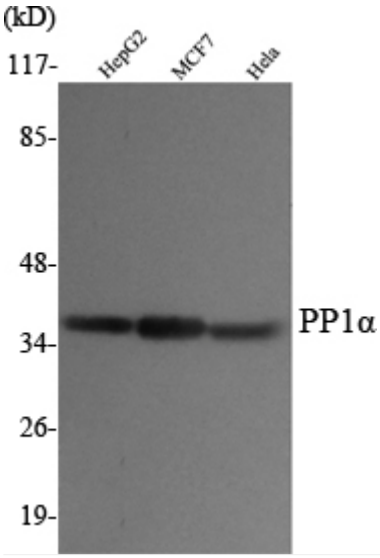
PP1α Monoclonal Antibody

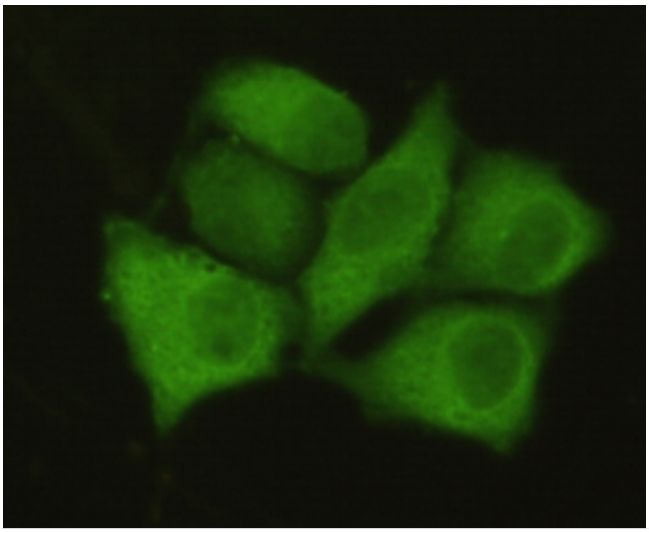
Catalog No	BYab-30262
Isotype	IgG
Reactivity	Human;Mouse;Rat;Bovine;Chicken;Pig;Rabbit;Zebrafish
Applications	WB;IF
Gene Name	PPP1CA
Protein Name	Serine/threonine-protein phosphatase PP1-alpha catalytic subunit
Immunogen	Purified recombinant human PP1α (N-terminus) protein fragments expressed in E.coli.
Specificity	PP1α Monoclonal Antibody detects endogenous levels of PP1α protein.
Formulation	Purified mouse monoclonal in buffer containing 0.1M Tris-Glycine (pH 7.4, 150 mM NaCl) with 0.2% sodium azide, 50% glycerol.
Source	Monoclonal, Mouse
Purification	Affinity purification
Dilution	Western Blot: 1/1000 - 1/2000. Immunofluorescence: 1/100 - 1/500. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	PPP1CA; PPP1A; Serine/threonine-protein phosphatase PP1-alpha catalytic subunit; PP-1A
Observed Band	
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 analysis using PP1α Monoclonal Antibody against HepG2, MCF7, HeLa cell lysate.



Immunofluorescence analysis of HeLa cells using PP1 α Monoclonal Antibody.