

Product datasheet for **AP20315PU-N**

PPP1A (PPP1CA) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	Western blot: 1/500-1/1000. Immunohistochemistry on paraffin sections: 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of PP1 α protein.
Formulation:	Phosphate buffered saline (PBS) with 0.05% sodium azide, approx. pH 7.2 State: Aff - Purified State: Liquid purified Ig fraction
Concentration:	1.0 mg/ml
Purification:	Affinity-chromatography using epitope-specific immunogen; purity is > 95% (by SDS-PAGE)
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 37 kDa
Gene Name:	protein phosphatase 1 catalytic subunit alpha
Database Link:	Entrez Gene 19045 Mouse Entrez Gene 24668 Rat Entrez Gene 5499 Human P62136



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Background:

In eukaryotes, the phosphorylation and dephosphorylation of proteins on serine and threonine residues is an essential means of regulating a broad range of cellular functions, including division, homeostasis and apoptosis. A group of proteins that are intimately involved in this process are the protein phosphatases. In general, the protein phosphatase (PP) holoenzyme is a trimeric complex composed of a regulatory subunit, a variable subunit and a catalytic subunit. Four major families of protein phosphatase catalytic subunit have been identified, designated PP1, PP2A, PP2B (calcineurin) and PP2C. An additional protein phosphatase catalytic subunit, PPX (also known as PP4) is a putative member of a novel PP family. The PP1 family is comprised of subfamily members PP1 α , PP1 β and PP1 γ , which are 37 kDa MgATP-dependent enzymes. PP1 inactivity is maintained through its association with the 16-18 kDa inhibitory protein NIPP-1 (nuclear inhibitor of PP1). Phosphorylation of NIPP-1 by cAMP-PK or casein kinase II results in the release of active PP1.

Synonyms:

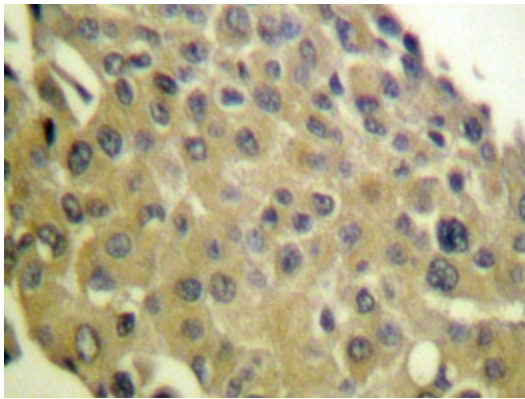
PPP1A, PP-1A

Protein Families:

Druggable Genome, Phosphatase

Protein Pathways:

Focal adhesion, Insulin signaling pathway, Long-term potentiation, Oocyte meiosis, Regulation of actin cytoskeleton, Vascular smooth muscle contraction

Product images:

Immunohistochemistry analyzes of PP1a antibody (Cat.-No.: AP20315PU-N) in paraffin-embedded human breast carcinoma tissue.