

**Goat Anti-PPP2R4 / PP2A Antibody**  
**Peptide-affinity purified goat antibody**  
**Catalog # AF1855a****Specification**

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**Goat Anti-PPP2R4 / PP2A Antibody - Product Information**

Application	WB, E
Primary Accession	<a href="#">Q15257</a>
Other Accession	<a href="#">NP_821070</a> , <a href="#">5524</a> , <a href="#">110854 (mouse)</a> , <a href="#">362102 (rat)</a>
Reactivity	Human, Mouse, Rat
Predicted	Dog
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	40668

**Goat Anti-PPP2R4 / PP2A Antibody - Additional Information****Gene ID** 5524**Other Names**

Serine/threonine-protein phosphatase 2A activator, 5.2.1.8, PP2A, subunit B', PR53 isoform, Phosphotyrosyl phosphatase activator, PTPA, Serine/threonine-protein phosphatase 2A regulatory subunit 4, Serine/threonine-protein phosphatase 2A regulatory subunit B', PPP2R4, PTPA

**Dilution**

WB~~1:1000

E~~N/A

**Format**

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Goat Anti-PPP2R4 / PP2A Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-PPP2R4 / PP2A Antibody - Protein Information****Name** PTPA ([HGNC:9308](#))

**Synonyms** PPP2R4**Function**

PPlases accelerate the folding of proteins. It catalyzes the cis-trans isomerization of proline imidic peptide bonds in oligopeptides (By similarity). Acts as a regulatory subunit for serine/threonine-protein phosphatase 2A (PP2A) (PubMed:<a href="http://www.uniprot.org/citations/16916641" target="\_blank">16916641</a>, PubMed:<a href="http://www.uniprot.org/citations/36073231" target="\_blank">36073231</a>). Modulates PP2A activity or substrate specificity, probably by inducing a conformational change in the catalytic subunit, a proposed direct target of the PPlase (PubMed:<a href="http://www.uniprot.org/citations/16916641" target="\_blank">16916641</a>). Can reactivate inactive phosphatase PP2A-phosphatase methylesterase complexes (PP2A(i)) in presence of ATP and Mg(2+) (By similarity). Reversibly stimulates the variable phosphotyrosyl phosphatase activity of PP2A core heterodimer PP2A(D) in presence of ATP and Mg(2+) (in vitro) (PubMed:<a href="http://www.uniprot.org/citations/16916641" target="\_blank">16916641</a>). The phosphotyrosyl phosphatase activity is dependent of an ATPase activity of the PP2A(D):PPP2R4 complex (PubMed:<a href="http://www.uniprot.org/citations/16916641" target="\_blank">16916641</a>). Is involved in apoptosis; the function appears to be independent from PP2A (PubMed:<a href="http://www.uniprot.org/citations/17333320" target="\_blank">17333320</a>).

**Cellular Location**

Cytoplasm. Nucleus

**Tissue Location**

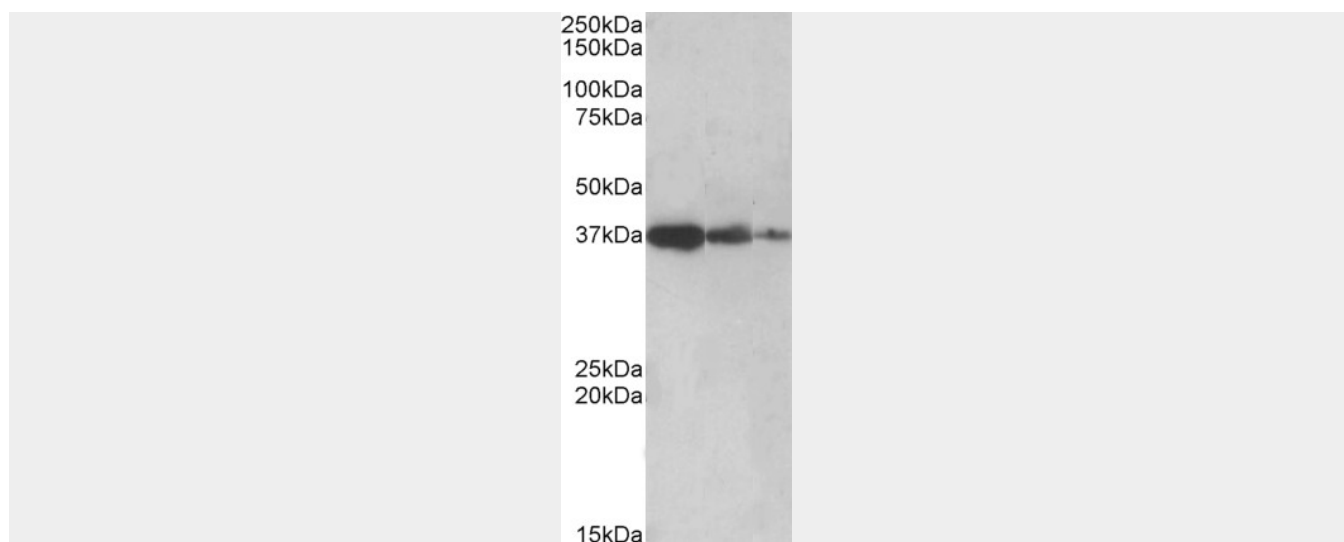
Widely expressed.

**Goat Anti-PPP2R4 / PP2A Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Goat Anti-PPP2R4 / PP2A Antibody - Images**



AF1855a (0.5 µg/ml) staining of Human Liver lysate (lane 1), Mouse Liver (lane 2) and Rat Liver (lane 3) (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

#### **Goat Anti-PPP2R4 / PP2A Antibody - Background**

Protein phosphatase 2A is one of the four major Ser/Thr phosphatases and is implicated in the negative control of cell growth and division. Protein phosphatase 2A holoenzymes are heterotrimeric proteins composed of a structural subunit A, a catalytic subunit C, and a regulatory subunit B. The regulatory subunit is encoded by a diverse set of genes that have been grouped into the B/PR55, B'/PR61, and B''/PR72 families. These different regulatory subunits confer distinct enzymatic specificities and intracellular localizations to the holoenzyme. The product of this gene belongs to the B' family. This gene encodes a specific phosphotyrosyl phosphatase activator of the dimeric form of protein phosphatase 2A. Alternative splicing results in multiple transcript variants encoding different isoforms.

#### **Goat Anti-PPP2R4 / PP2A Antibody - References**

Sphingosine interaction with acidic leucine-rich nuclear phosphoprotein-32A (ANP32A) regulates PP2A activity and cyclooxygenase (COX)-2 expression in human endothelial cells. Habrukowich C, et al. J Biol Chem, 2010 Aug 27. PMID 20558741.

Protein phosphatase 2A has an essential role in the activation of gamma-irradiation-induced G2/M checkpoint response. Yan Y, et al. Oncogene, 2010 Jul 29. PMID 20498628.

PP2A regulates tau phosphorylation directly and also indirectly via activating GSK-3beta. Qian W, et al. J Alzheimers Dis, 2010 Jan. PMID 20308788.

Protein phosphatase 2A reactivates FOXO3a through a dynamic interplay with 14-3-3 and AKT. Singh A, et al. Mol Biol Cell, 2010 Mar. PMID 20110348.

Peptidyl-prolyl isomerase 1 regulates protein phosphatase 2A-mediated topographic phosphorylation of neurofilament proteins. Rudrabhatla P, et al. J Neurosci, 2009 Nov 25. PMID 19940183.