10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

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

Specification

Goat Anti-PPP2R4 / PP2A Antibody - Product Information

Application	**WB**
Primary Accession	Q15257
Other Accession	NP_821070, 5524, 110854 (mouse), 362102 (rat)
Reactivity	**Human, Mouse, Rat**
Predicted	**Dog, Cow**
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

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
PPIases accelerate the folding of proteins. It catalyzes the cis-trans isomerization of proline imidic

peptide bonds in oligopeptides. Acts as a regulatory subunit for serine/threonine- protein phosphatase 2A (PP2A) modulating its activity or substrate specificity, probably by inducing a conformational change in the catalytic subunit, a proposed direct target of the PPIase. 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). The phosphotyrosyl phosphatase activity is dependent of an ATPase activity of the PP2A(D):PPP2R4 complex. Is involved in apoptosis; the function appears to be independent from PP2A.

Cellular Location
Cytoplasm. Nucleus

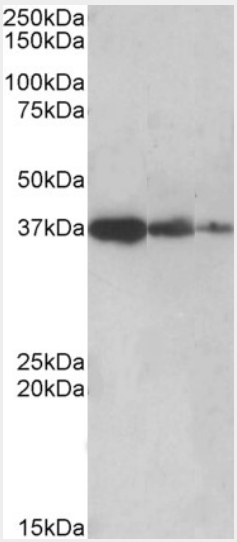
Tissue Location
Widely expressed.

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 Cytomety
- 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 holozenzyme. 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.