



Rabbit Anti-PPP1R10 antibody

SL11666R

Product Name:	PPP1R10
Chinese Name:	丝氨酸/苏氨酸蛋白磷酸酶1调节亚基10抗体
Alias:	PNUTS; CAT 53; CAT53; FB 19; FB19; FB19 protein; MHC class I region proline rich protein CAT53; p99; Phosphatase 1 nuclear targeting subunit; Phosphatase nuclear targeting subunit; PNUTS; PP1 binding protein of 114 kDa; PP1R10; Protein phosphatase 1 regulatory (inhibitor) subunit 10; Protein phosphatase 1 regulatory subunit 10; Serine/threonine protein phosphatase 1 regulatory subunit 10; PP1RA HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Sheep,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	99kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human PPP1R10:151-250/940
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Eukaryotic protein phosphorylation and dephosphorylation on serine and threonine residues regulates numerous cell functions, including division, homeostasis and apoptosis. A group of proteins that play a major role in this process are the

serine/threonine protein phosphatases. Protein phosphatase (PP) holoenzyme is a trimeric complex that contains a regulatory subunit, a variable subunit and a catalytic subunit. Families of PP catalytic subunits include PP1, PP2A, PP2B, PP2C, PPX and PP5. Regulatory subunits include nuclear inhibitor of PP1 (NIPP1), PP1 nuclear targeting subunit (PNUTS), PP2A-A, PP2A-B, PP2A-B56, PP2A-C, PP2B-B and PR48. PNUTS, also designated CAT53 or FB19, is encoded by the gene PPP1R10. PNUTS acts as an inhibitor for the phosphatase activity of PP1 Alpha and PP1 Gamma. It is a nuclear protein primarily detected in nucleoplasmic bodies and within nucleoli. PNUTS expression levels are highest in brain, heart, lung, placenta, liver, kidney, pancreas and skeletal muscle.

Function:

PPP1R10 (serine/threonine protein phosphatase 1 regulatory subunit 10), also known as PNUTS, is a targeting subunit of protein phosphatase 1 (PP1). Furthermore, PPP1R10 acts as an inhibitor of PPP1CA and PPP1CC phosphatase activities. Its inhibitory activity on PPP1CA is only observed when PPP1R10 is phosphorylated by Protein Kinase A (PKA). PPP1R10 contains a zinc finger motif and is predominantly localised within the nucleus. Recently, PPP1R10 has been shown to target PP1 to GABA(C) receptors, shuttling from the nucleus to the cell membrane in cells co-expressing this receptor. This highlights a role for this protein in the regulation of synaptic signal transduction. PPP1R10 has also been shown to regulate the activity of p53 in response to hypoxia.

Subunit:

Component of the PTW/PP1 phosphatase complex, composed of PPP1R10/PNUTS, TOX4, WDR82, and PPP1CA or PPP1CB or PPP1CC. Interacts with PPP1CC. Interacts with PPP1CA, WDR82 and TOX4

Subcellular Location:

Nucleus. Note=Found in discrete nucleoplasmic bodies and within nucleoli. Associates with chromatin during interphase, excluded from condensed chromosomes during early mitosis and is reloaded onto chromosomes at the late telophase

Tissue Specificity:

Expressed in heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas.

Post-translational modifications:

Phosphorylated on Ser-398 and Thr-400 by PKA within the region necessary for interaction with PPP1CA

Similarity:

Contains 1 C3H1-type zinc finger.
Contains 1 TFIIS N-terminal domain.

SWISS:

Q96QC0

Gene ID:
5514

Database links:

[Entrez Gene: 5514](#) Human

[Omim: 603771](#) Human

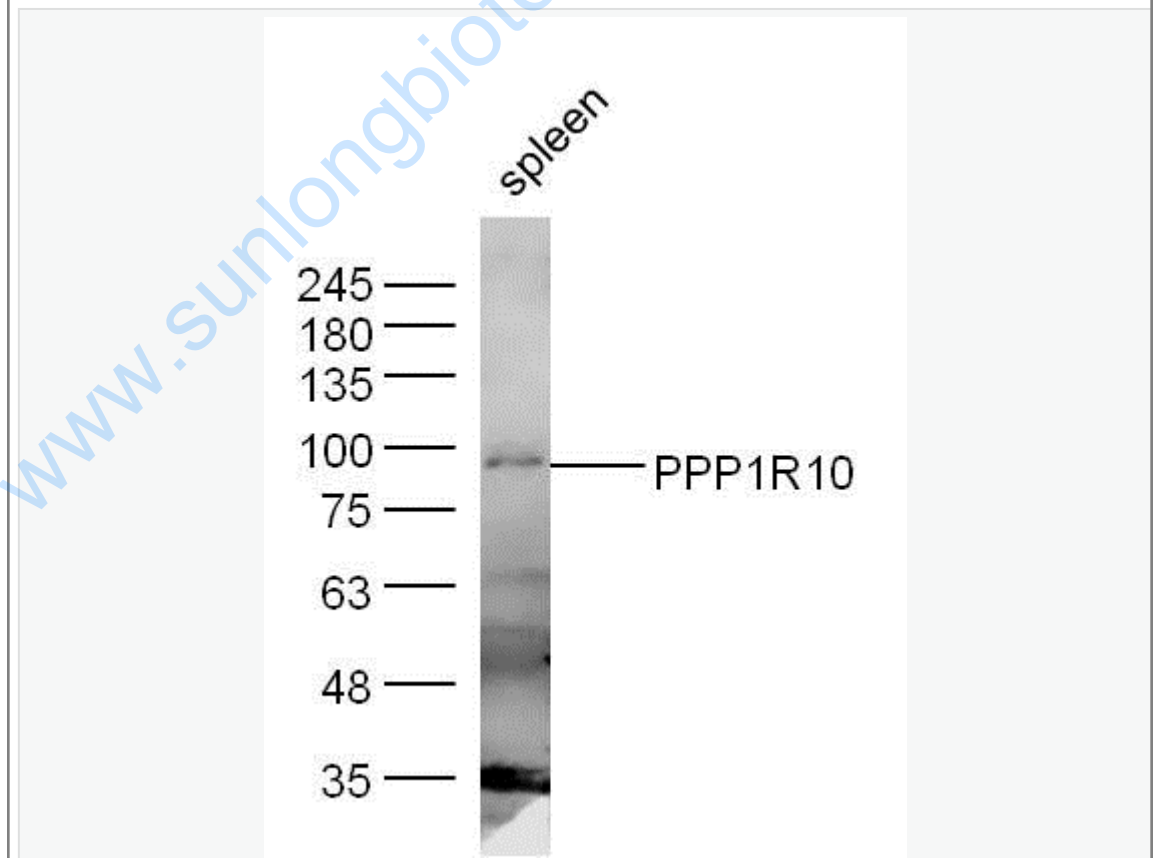
[SwissProt: Q96QC0](#) Human

[Unigene: 106019](#) Human

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:



Sample:

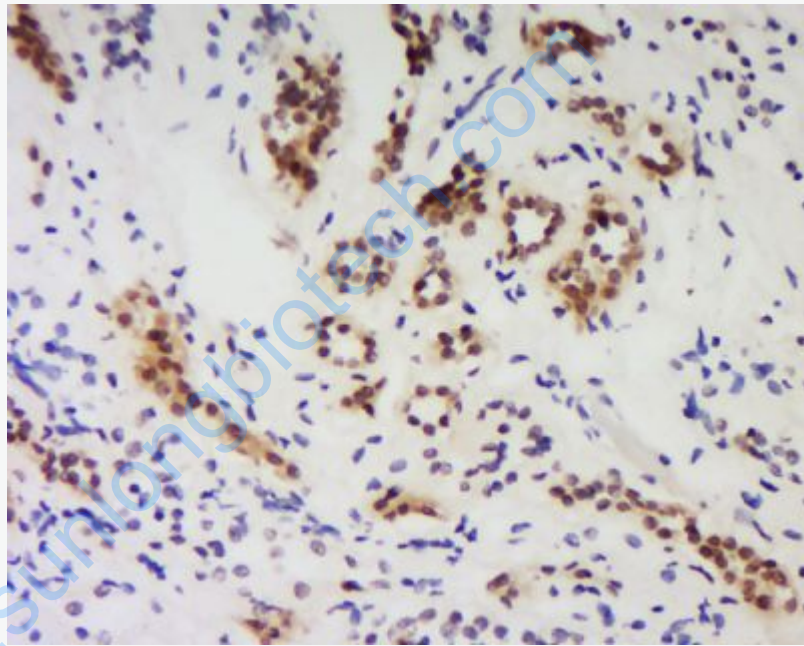
Spleen (Mouse) Lysate at 40 ug

Primary: Anti-PPP1R10 (Bs- 11666R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 99 kD

Observed band size: 99 kD

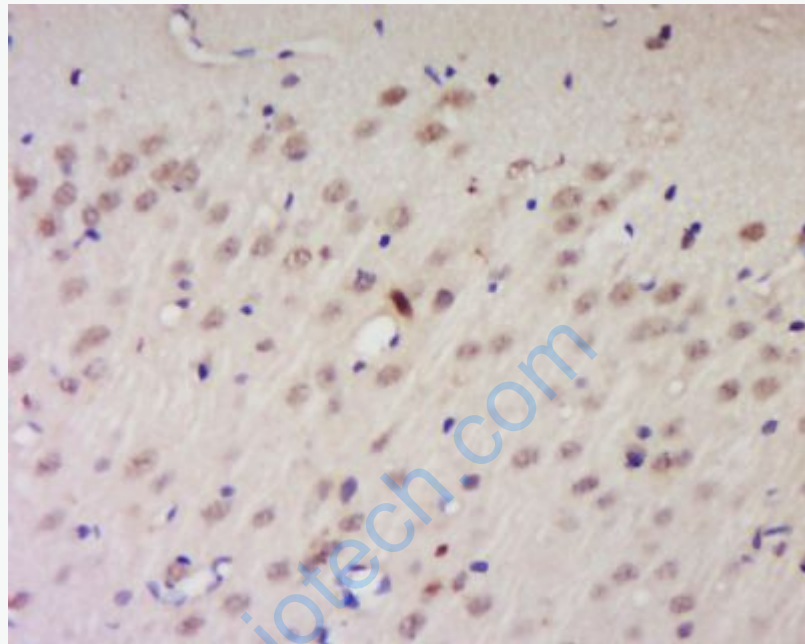


Tissue/cell: Human kidney tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-ppp1R10 Polyclonal Antibody, Unconjugated(SL11666R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and

DAB(C-0010) staining



Tissue/cell: Rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;
Incubation: Anti-ppp1R10 Polyclonal Antibody, Unconjugated(SL11666R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining