Product name:	NIPP1 Rabbit Polyclonal Antibody
Cat number:	ABN14710
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from human PPP1R8. AA range:196-245
Reactivity:	Human,Mouse,Rat
Applications:	WB 1:500-1:2000,ELISA 1:10000-1:20000
Molecular Weight:	40kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

This gene, through alternative splicing, encodes three different isoforms. Two of the protein isoforms encoded by this gene are specific inhibitors of type 1 serine/threonine protein phosphatases and can bind but not cleave RNA. The third protein isoform lacks the phosphatase inhibitory function but is a single-strand endoribonuclease comparable to RNase E of E. coli. This isoform requires magnesium for its function and cleaves specific sites in A+U-rich regions of RNA. [provided by RefSeq, Jul 2008],cofactor:Magnesium. Endoribonuclease function is magnesium-dependent.,domain:Has a basic N- and C-terminal and an acidic central domain.,function:Inhibitor subunit of the major nuclear protein phosphatase-1 (PP-1). It has RNA-binding activity but does not cleave RNA and may target PP-1 to RNA-associated substrates. May also be involved in pre-mRNA splicing. Binds DNA and might act as a transcriptional repressor. Seems to be required for cell proliferation.,function:Isoform Gamma is a site-specific single-strand endoribonuclease that cleaves single strand RNA 3' to purines and pyrimidines in A+U-rich regions. It generates 5'-phosphate termini at the site of cleavage. This isoform does not inhibit PP-1. May be implicated in mRNA splicing.,miscellaneous:A synthetic peptide, NIPP-1(330-351), is able to inhibit PP-1. Phosphorylation of Tyr-335 reduces PP-1 inhibition, whereas phosphorylation of Thr-346 or Ser-348 has no effect.,PTM:May be inactivated by phosphorylation on Ser-199 or Ser-204 (By similarity). Phosphorylated by Lyn in vitro on Tyr-264, and also on Tyr-335 in the presence of RNA.,similarity:Contains 1 FHA domain.,subcellular location:Found mainly in the cytoplasm.,subcellular location:Primarily, but not exclusively, nuclear.,subunit:Interacts with phosphorylated CDC5L, SF3B1 and MELK. Interacts with EED, in a nucleic acid-stimulated manner. Part of a complex consisting of PPP1R8, EED, HDAC2 and PP-1. Part of the spliceosome.,tissue specificity:Ubiquitously expressed, with highest levels in heart and skeletal muscle, followed by brain, placenta, lung, liver and pancreas. Less abundant in kidney. The concentration and ratio between isoforms is cell-type dependent. Isoform Alpha (>90%) and isoform Beta were found in brain, heart and kidney. Isoform Gamma is mainly found in B-cells and T-lymphocytes, and has been found in 293 embryonic kidney cells.,