Anti-PTEN-P1 (RABBIT) Antibody] - 600-401-A90S

Code: 600-401-A90S **Size:** 25 µL

Product Description: Anti-PTEN-P1 (RABBIT) Antibody] - 600-401-A90S

Concentration: 1.15 mg/mL by UV absorbance at 280 nm

PhysicalState: Liquid (sterile filtered)

Label	Unconjugated
Host	Rabbit
Gene Name	PTH2
Species Reactivity	human
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Stabilizer	None
Preservative	0.01% (w/v) Sodium Azide
Storage Condition	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Synonyms	rabbit anti-PTEN-P1 antibody, Phosphatase and tensin homolog 2, Phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN, Mutated in multiple advanced cancers 1, Phosphatase and tensin homolog, PTEN, MMAC1, TEP1
Application Note	This affinity purified antibody has been tested for use in ELISA and western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 55 kDa in size corresponding to PTEN-P1 protein by western blotting in the appropriate cell lysate or extract.
Background	This gene (PTENP1) is a highly homologous pseudogene of PTEN. PTEN was identified as a tumor suppressor that is mutated in a large number of cancers at high frequency. PTEN is a phosphatidylinositol-3,4,5-trisphosphate 3-phosphatase. It contains a tension like domain as well as a catalytic domain similar to that of the dual specificity protein tyrosine phosphatases. Unlike most of the protein tyrosine phosphatases, this protein preferentially dephosphorylates phosphoinositide substrates. It negatively regulates intracellular levels of phosphatidylinositol-3,4,5-trisphosphate in cells and functions as a tumor suppressor by negatively regulating AKT/PKB signaling pathway.
Purity And Specificity	This affinity-purified antibody is directed against human PTEN-P1 protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. Reactivity occurs against human PTEN-P1 protein. A BLAST analysis was used to suggest cross reactivity with PTEN proteins from mouse, dog, macaque, chimpanzee, rat, opossum, zebrafish, green pufferfish, and platypus sources based on 100% homology with the immunizing sequence. Reactivity against homologues from other sources is not known.
Assay Dilutions	User Optimized
ELISA	1:160,000
Western Blot	1:500 to 1:2,000
Other Assays	User Optimized
Expiration	Expiration date is three (3) months from date of opening.
Immunogen	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a peptide corresponding to amino acids near the N-terminal end of human PTEN-P1 protein.
General Reference	Phillips,R.J., Mestas,J., Gharaee-Kermani,M., Burdick,M.D., Sica,A., Belperio,J.A., Keane,M.P. and Strieter,R.M. (2005) Epidermal growth factor and hypoxia-induced expression of CXC chemokine receptor 4 on non-small cell lung cancer cells is regulated by the phosphatidylinositol 3-kinase/PTEN/AKT/mammalian target of rapamycin signaling pathway and activation of hypoxia inducible factor-1alpha. J. Biol. Chem. 280 (23), 22473-22481. Baak,J.P., Van Diermen,B., Steinbakk,A., Janssen,E., Skaland,I., Mutter,G.L., Fiane,B. and Lovslett,K. (2005) Lack of PTEN expression in endometrial intraepithelial neoplasia is correlated with cancer progression. Hum. Pathol. 36 (5), 555-561. Steck,P.A., Pershouse,M.A., Jasser,S.A., Yung,W.K., Lin,H., Ligon,A.H., Langford,L.A., Baumgard,M.L., Hattier,T., Davis,T., Frye,C., Hu,R., Swedlund,B., Teng,D.H. and Tavtigian,S.V. (1997) Identification of a candidate tumour suppressor gene, MMAC1, at chromosome 10q23.3 that is mutated in multiple advanced cancers. Nat. Genet. 15 (4), 356-362.
Related Products	

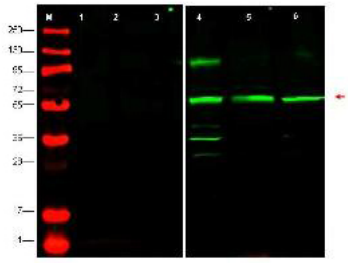
000-000-260	Substrate Peptide AKT PKBa - 000-000-260
000-000-401	AKT CONTROL PEPTIDE - 000-000-401
100-401-401	Anti-AKT (RABBIT) Antibody - 100-401-401
200-301-268	Anti-AKT pS473 (MOUSE) Monoclonal Antibody - 200-301-268

Related Links

	NCBI - 73765544
http://www.ncbi.nlm.nih.gov/protein/73765544	
UniProtKB - O43460	http://www.uniprot.org/uniprot/O43460
	GeneID - 5728

Images

1	Western blot using Rockland's affinity purified anti-PTEN-P1 antibody shows detection of endogenous PTEN-P1 in whole cell lysates from human derived cell lines HeLa (lane 4), HEK293 (lane 5) and MCF7 (lane 6). The band at ~55 kDa (arrowhead) corresponds to PTEN-P1. Lanes 1-3 were show the results of staining after the antibody was first pre-incubated with the immunizing peptide. The identity of lower molecular weight bands in lane 4 is unknown. Briefly, each lane contains approximately 35 µg of lysate. Primary antibody was used at a 1:500 dilution in 5% BLOTTO in PBS reacted overnight at 4°C. The membrane was washed and reacted with a 1:10,000 dilution of IRDye800™ conjugated Gt-a-Rabbit IgG [H&L] MX (611-132-122) for 45 min at room temperature (800 nm channel, green). Molecular weight estimation was made by comparison to prestained MW markers in lane M (700 nm channel, red). IRDye™800 fluorescence image was captured using the Odyssey® Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.



Disclaimer

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