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PHLPP1 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP7842a

Specification

PHLPP1 Antibody (N-term) - Product Information

Application	**WB,E**
Primary Accession	O60346
Other Accession	Q9WTR8, Q8CHE4
Reactivity	**Human**
Predicted	**Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**184672**
Antigen Region	**531-560**

PHLPP1 Antibody (N-term) - Additional Information

Gene ID 23239

Other Names
PH domain leucine-rich repeat-containing protein phosphatase 1, Pleckstrin homology domain-containing family E member 1, PH domain-containing family E member 1, Suprachiasmatic nucleus circadian oscillatory protein, hSCOP, PHLPP1, KIAA0606, PHLPP, PLEKHE1, SCOP

Target/Specificity
This PHLPP1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 531-560 amino acids from the N-terminal region of human PHLPP1.

Dilution
WB~~1:1000

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

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

Precautions
PHLPP1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

PHLPP1 Antibody (N-term) - Protein Information

Name PHLPP1

Synonyms KIAA0606, PHLPP, PLEKHE1, SCOP

Function Protein phosphatase involved in regulation of Akt and PKC signaling. Mediates dephosphorylation in the C-terminal domain hydrophobic motif of members of the AGC Ser/Thr protein kinase family; specifically acts on 'Ser-473' of AKT2 and AKT3, 'Ser-660' of PRKCB and 'Ser-657' of PRKCA (PubMed:15808505, PubMed:17386267, PubMed:18162466). Isoform 2 seems to have a major role in regulating Akt signaling in hippocampal neurons (By similarity). Akt regulates the balance between cell survival and apoptosis through a cascade that primarily alters the function of transcription factors that regulate pro- and antiapoptotic genes. Dephosphorylation of 'Ser-473' of Akt triggers apoptosis and suppression of tumor growth. Dephosphorylation of PRKCA and PRKCB leads to their destabilization and degradation (PubMed:18162466). Dephosphorylates STK4 on 'Thr-387' leading to STK4 activation and apoptosis (PubMed:20513427). Dephosphorylates RPS6KB1 and is involved in regulation of cap-dependent translation (PubMed:21986499). Inhibits cancer cell proliferation and may act as a tumor suppressor (PubMed:19079341). Dephosphorylates RAF1 inhibiting its kinase activity (PubMed:24530606). May act as a negative regulator of K-Ras signaling in membrane rafts (By similarity). Involved in the hippocampus- dependent long-term memory formation (By similarity). Involved in circadian control by regulating the consolidation of circadian periodicity after resetting (By similarity). Involved in development and function of regulatory T-cells (By similarity).

Cellular Location
Cytoplasm. Membrane; Peripheral membrane protein. Nucleus. Note=In colorectal cancer tissue, expression is concentrated at the lateral membrane of epithelial cells

Tissue Location
In colorectal cancer tissue, expression is highest in the surface epithelium of normal colonic mucosa adjacent to the cancer tissue but is largely excluded from the crypt bases. Expression is lost or significantly decreased in 78% of tested tumors (at protein level). Ubiquitously expressed in non-cancerous tissues

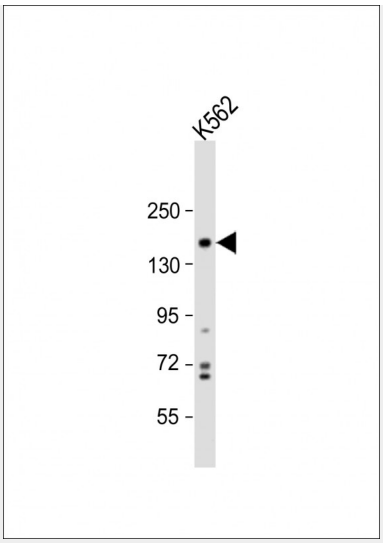
PHLPP1 Antibody (N-term) - Protocols

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

PHLPP1 Antibody (N-term) - Images

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Anti-PHLPP1 Antibody (N-term) at 1:1000 dilution + K562 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 185 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

PHLPP1 Antibody (N-term) - Background

PHLPP1 is a protein phosphatase that specifically mediates dephosphorylation of 'Ser-473' of AKT1, a protein that regulates the balance between cell survival and apoptosis through a cascade that primarily alters the function of transcription factors that regulate pro- and antiapoptotic genes.

PHLPP1 Antibody (N-term) - References

Gao,T., J. Biol. Chem. 283 (10), 6300-6311 (2008)
Brognard,J., Mol. Cell 25 (6), 917-931 (2007)
Gao,T., Mol. Cell 18 (1), 13-24 (2005)