

PHLPP2 Antibody (N-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7799A**Specification**

PHLPP2 Antibody (N-term) - Product Information

Application	WB,E
Primary Accession	Q6ZVD8
Other Accession	Q8BXA7
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	4-31

PHLPP2 Antibody (N-term) - Additional Information**Gene ID** 23035**Other Names**

PH domain leucine-rich repeat-containing protein phosphatase 2, PH domain leucine-rich repeat-containing protein phosphatase-like, PHLPP-like, PHLPP2, KIAA0931, PHLPPL

Target/Specificity

This PHLPP2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 4-31 amino acids from the N-terminal region of human PHLPP2.

Dilution

WB~~1:1000

E~~Use at an assay dependent concentration.

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

PHLPP2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

PHLPP2 Antibody (N-term) - Protein Information**Name** PHLPP2

Synonyms KIAA0931, PHLPP

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 AKT1, 'Ser-660' of PRKCB isoform beta-II and 'Ser-657' of PRKCA. 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 decreases cell proliferation. Also controls the phosphorylation of AKT3. 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. Dephosphorylation of PRKCA and PRKCB leads to their destabilization and degradation. Dephosphorylates RAF1 inhibiting its kinase activity (PubMed:[24530606](#)).

Cellular Location

Cytoplasm. Membrane; Peripheral membrane protein. Nucleus. Note=In colorectal cancer tissue, expression is concentrated in the cytoplasm and nucleus

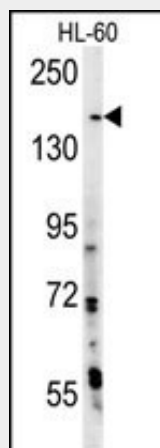
Tissue Location

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 80% of tested tumors (at protein level).

PHLPP2 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 Cytometry](#)
- [Cell Culture](#)

PHLPP2 Antibody (N-term) - Images

PHLPP2 Antibody (N-term) (Cat. #AP7799a) western blot analysis in HL-60 cell line lysates

(15ug/lane). This demonstrates the PHLPP2 antibody detected the PHLPP2 protein (arrow).

PHLPP2 Antibody (N-term) - Background

PHLPP2 is a protein phosphatase that specifically mediates dephosphorylation of 'Ser-473' of AKT1. This protein 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 AKT1 triggers apoptosis and decrease cell proliferation. It also controls the phosphorylation of AKT3.

PHLPP2 Antibody (N-term) - References

Brognard, J., Mol. Cell 25 (6), 917-931 (2007)