

PHLPP2 Antibody (C-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7799B

Specification

PHLPP2 Antibody (C-term) - Product Information

Application	WB, IHC-P, FC,E
Primary Accession	Q6ZVD8
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	146751
Antigen Region	1295-1323

PHLPP2 Antibody (C-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 1295-1323 amino acids from the C-terminal region of human PHLPP2.

Dilution

WB~~1:1000
IHC-P~~1:50~100
FC~~1:10~50

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

PHLPP2 Antibody (C-term) - Protein Information

Name PHLPP2

Synonyms KIAA0931, PHLPL

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

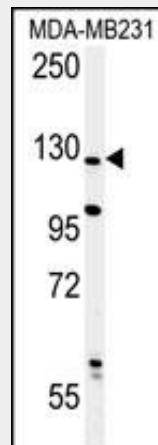
Tissue Location

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 (C-term) - Protocols

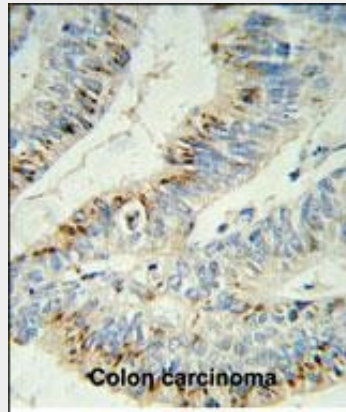
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

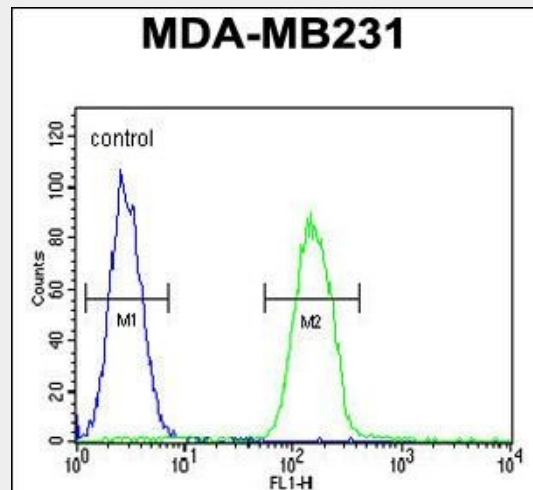
PHLPP2 Antibody (C-term) - Images

Western blot analysis of PHLPP2 Antibody (C-term) (Cat. #AP7799b) in MDA-MB231 cell line

lysates (35ug/lane).PHLPP2 (arrow) was detected using the purified Pab.



PHLPP2 Antibody (C-term) (Cat. #AP7799b) IHC analysis in formalin fixed and paraffin embedded colon carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the PHLPP2 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



PHLPP2 Antibody (C-term) (Cat. #AP7799b) flow cytometric analysis of MDA-MB231 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

PHLPP2 Antibody (C-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 (C-term) - References

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