

**Anti-PHLPP Antibody**  
**Rabbit polyclonal antibody to PHLPP**  
**Catalog # AP59947****Specification**

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**Anti-PHLPP Antibody - Product Information**

Application	<b>WB</b>
Primary Accession	<a href="#">O60346</a>
Other Accession	<a href="#">Q8CHE4</a>
Reactivity	<b>Human, Mouse, Rat</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Calculated MW	<b>184672</b>

**Anti-PHLPP Antibody - Additional Information****Gene ID** 23239**Other Names**

KIAA0606; PHLPP; PLEKHE1; SCOP; 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

**Target/Specificity**

Recognizes endogenous levels of PHLPP protein.

**Dilution**

WB~~WB (1/500 - 1/1000)

**Format**

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

**Storage**

Store at -20 °C. Stable for 12 months from date of receipt

**Anti-PHLPP Antibody - 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](http://www.uniprot.org/citations/15808505), PubMed: [17386267](http://www.uniprot.org/citations/17386267)),

PubMed:<a href="http://www.uniprot.org/citations/18162466" target="\_blank">18162466</a>). 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:<a href="http://www.uniprot.org/citations/18162466" target="\_blank">18162466</a>). Dephosphorylates STK4 on 'Thr-387' leading to STK4 activation and apoptosis (PubMed:<a href="http://www.uniprot.org/citations/20513427" target="\_blank">20513427</a>). Dephosphorylates RPS6KB1 and is involved in regulation of cap-dependent translation (PubMed:<a href="http://www.uniprot.org/citations/21986499" target="\_blank">21986499</a>). Inhibits cancer cell proliferation and may act as a tumor suppressor (PubMed:<a href="http://www.uniprot.org/citations/19079341" target="\_blank">19079341</a>). Dephosphorylates RAF1 inhibiting its kinase activity (PubMed:<a href="http://www.uniprot.org/citations/24530606" target="\_blank">24530606</a>). 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

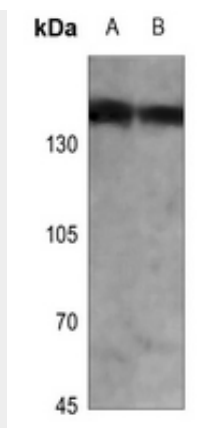
#### **Anti-PHLPP Antibody - Protocols**

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](#)

#### **Anti-PHLPP Antibody - Images**





Western blot analysis of PHLPP expression in mouse liver (A), rat liver (B) whole cell lysates.

#### **Anti-PHLPP Antibody - Background**

KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human PHLPP. The exact sequence is proprietary.