

**Goat Anti-PHLPP2 Antibody**  
**Peptide-affinity purified goat antibody**  
**Catalog # AF1821a****Specification**

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**Goat Anti-PHLPP2 Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">Q6ZVD8</a>
Other Accession	<a href="#">NP_055835</a> , <a href="#">23035</a>
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	146751

**Goat Anti-PHLPP2 Antibody - Additional Information****Gene ID** 23035**Other Names**

PH domain leucine-rich repeat-containing protein phosphatase 2, 3.1.3.16, PH domain leucine-rich repeat-containing protein phosphatase-like, PHLPP-like, PHLPP2, KIAA0931, PHLPPL

**Format**

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Goat Anti-PHLPP2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-PHLPP2 Antibody - Protein Information****Name** PHLPP2**Synonyms** KIAA0931, PHLPPL**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:<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. Dephosphorylation of PRKCA and PRKCB leads to their destabilization and degradation. Dephosphorylates RAF1 inhibiting its kinase activity (PubMed:<a href="http://www.uniprot.org/citations/24530606" target="\_blank">24530606</a>).

#### 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).

### Goat Anti-PHLPP2 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](#)

### Goat Anti-PHLPP2 Antibody - Images



EB07912 (0.1µg/ml) staining of Human Brain (Amygdala, Hippocampus, Substantia Nigra) lysate (35µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

### Goat Anti-PHLPP2 Antibody - References

Mst1 is an interacting protein that mediates PHLPPs' induced apoptosis. Qiao M, et al. Mol Cell,

2010 May 28. PMID 20513427.

Personalized smoking cessation: interactions between nicotine dose, dependence and quit-success genotype score. Rose JE, et al. Mol Med, 2010 Jul-Aug. PMID 20379614.

Defining the human deubiquitinating enzyme interaction landscape. Sowa ME, et al. Cell, 2009 Jul 23. PMID 19615732.

Common polymorphism in the phosphatase PHLPP2 results in reduced regulation of Akt and protein kinase C. Brognard J, et al. J Biol Chem, 2009 May 29. PMID 19324870.

Depletion of Pleckstrin homology domain leucine-rich repeat protein phosphatases 1 and 2 by Bcr-Abl promotes chronic myelogenous leukemia cell proliferation through continuous phosphorylation of Akt isoforms. Hirano I, et al. J Biol Chem, 2009 Aug 14. PMID 19261608.