

Goat Anti-PHLPP2 Antibody

Peptide-affinity purified goat antibody Catalog # AF1821a

Specification

Goat Anti-PHLPP2 Antibody - Product Information

Application WB, Pep-ELISA

Primary Accession Q6ZVD8

Other Accession <u>NP_055835</u>, <u>23035</u>

Reactivity
Host
Clonality
Concentration
Isotype
Human
Goat
Polyclonal
100ug/200ul
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

Dilution

WB~~1:1000 Pep-ELISA~~N/A

Format

0.5~mg~lgG/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:20513427). Dephosphorylates RPS6KB1 and is involved in regulation of cap-dependent translation (PubMed: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: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

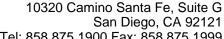
Provided below are standard protocols that you may find useful for product applications.

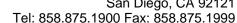
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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 guit-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. | Biol Chem, 2009 Aug 14. PMID 19261608.