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Anti-PHLPP Antibody

Catalog # AP59947

Product Information

Application	WB
Primary Accession	O60346
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	184672

Additional Information

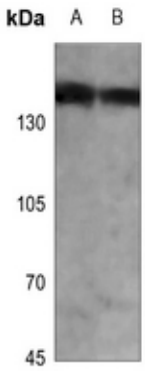
Gene ID	23239
Other Names	KIAA0606; PHLPP; PLEKHE1; SCOP; PH domain leucine-rich repeat-containing protein phosphatase 1; Pleckstrin homology domain-containing family E member 1; PH domain-containing family E member 1; Suprachiasmatic nucleus circadian oscillatory protein; hSCOP
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human PHLPP. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000)
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	PHLPP1 (HGNC:20610)
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, PubMed:17386267, PubMed:18162466). 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:18162466). 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 (PubMed:19079341). Dephosphorylates RAF1 inhibiting its kinase activity (PubMed:24530606). 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

Images



Western blot analysis of PHLPP expression in mouse liver (A), rat liver (B) whole cell lysates. (Predicted band size: 184 kD; Observed band size: 140 kD)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.