

PH Domain-containing family E member 1. Rabbit Antigen Immunoaffinity Purified Polyclonal

KIAA0606, PHLPP, PLEKHE1, SCOP, PHLPP1, PH domain leucine-rich repeat-containing protein phosphatase 1; Pleckstrin homology domain-containing family E member 1; Suprachiasmatic nucleus circadian oscillatory protein

BACKGROUND

PHLPP1 is a 1717 aa protein with phosphatase activity that mediates dephosphorylation of 'Ser-473' of AKT1, 'Ser-660' of PRKCB isoform beta-II and 'Ser-657' of PRKCA. AKT1 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 suppression of tumor growth. Controls the phosphorylation of AKT2 and AKT3 more efficiently than that of AKT1. Dephosphorylation of PRKCA and PRKCB leads to their destabilization and degradation. Inhibits cancer cell proliferation and may act as a tumor suppressor. May act as a negative regulator of K-Ras signaling in membrane rafts.

ORDERING INFORMATION

CATALOG NUMBER

X2736P

SIZE

100 µg

FORM

Pure

HOST/CLONE

Rabbit

FORMULATION

Provided as solution in phosphate buffered saline with 0.08% sodium azide

CONCENTRATION

See vial for concentration

ISOTYPE

Ig

APPLICATIONS

Immunohistochemistry, Western Blot, ELISA

SPECIES REACTIVITY

Human

ACCESSION NUMBER

O60346, Human

IMMUNOGEN

Synthetic peptide derived from the human PHLPP1 protein

POSITIVE CONTROL/TISSUE EXPRESSION

COMMENTS

Optimal concentration should be evaluated by serial dilutions.

PURIFICATION

Antigen Immunoaffinity Purification

SHIP CONDITIONS

Ship at ambient temperature, freeze upon arrival

STORAGE CUSTOMER

Product should be stored at -20°C. Aliquot to avoid freeze/thaw cycles

STABILITY

Products are stable for one year from purchase when stored properly

REFERENCES

1. Gao, T., et al. 'PHLPP: a phosphatase that directly dephosphorylates Akt, promotes apoptosis, and suppresses tumor growth' Mol. Cell, 18, 13-24, 2005
2. Bragnard, J., et al. 'PHLPP and a second isoform, PHLPP2, differentially attenuate the amplitude of Akt signaling by regulating distinct Akt isoforms.' Mol. Cell, 25, 917-931, 2007
3. Gao, T., et al. 'The phosphatase PHLPP controls the cellular levels of protein kinase C.' J. Biol. Chem., 283, 6300-6311, 2008