

PRODUCT INFORMATION



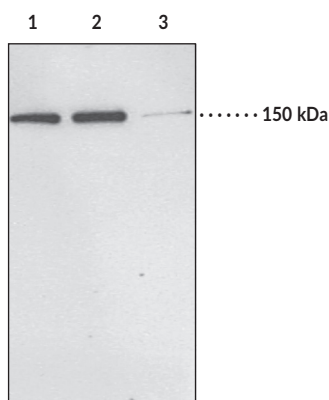
PH Domain Leucine-rich Repeat Protein Phosphatase 1 Polyclonal Antibody

Item No. 10007191

Overview and Properties

Contents:	This vial contains peptide affinity-purified antibody lyophilized from 500 μ l.
Synonyms:	KIAA0606, PHLPP1, PLEKHE1, Pleckstrin Homology Domain-containing Family E Member 1, hSCOP, Suprachiasmatic Nucleus Circadian Oscillatory Protein
Immunogen:	Synthetic peptide from the C-terminal region of human PHLPP1 (β isoform)
Cross Reactivity:	(+) PHLPP1 α , PHLPP1 β ; (-) PHLPP2
Species Reactivity:	(+) Human, mouse, and rat; other species not tested
Form:	Solid
Storage:	-20°C (as supplied)
Stability:	\geq 3 years
Storage Buffer:	TBS, pH 7.4, when reconstituted in 500 μ l double distilled water
Host:	Rabbit
Applications:	Immunocytochemistry (ICC), immunohistochemistry (IHC) (paraffin-embedded tissue), and western blot (WB); the recommended starting dilution for ICC and IHC (paraffin-embedded tissue) is 1:100 and 1:200 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Lane 1: Mouse brain homogenate (40 μ g)
Lane 2: Mouse brain homogenate (60 μ g)
Lane 3: Human hippocampus supernatant (60 μ g)

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

Cayman's PHLPP1 polyclonal antibody detects the carboxy-terminal amino acids within the PDZ-binding domain of both the PHLPP1 α and β isoforms. PHLPP2 shares partial identity with the domains of PHLPP1 however it has a unique PDZ-binding domain sequence. Protein kinase B/Akt is critical in regulating cell growth and death. Activation of a serine residue (Ser⁴⁷³) in a C-terminal hydrophobic motif of Akt is known to be linked to some of the most common human cancers. PHLPP1 and PHLPP2 dephosphorylate the hydrophobic motif of Akt and thus reduce Akt activity, resulting in a increase in the number of apoptotic cells.¹ PHLPP1 levels are markedly reduced in several colon cancer and glioblastoma cell lines that have elevated Akt phosphorylation. Injection of a human glioblastoma cell line overexpressing PHLPP1 into mice reduced tumor size by nearly 70% compared with control animals. mRNA of PHLPP1 is ubiquitously expressed, with highest levels found in brain.¹

Cayman's PHLPP1 Polyclonal Antibody detects the enzyme at around 150 kDa (α isoform) and 200 kDa (β isoform) by WB from various cell lines (THP-1) and tissues such as brain.

Reference

1. Gao, T., Furnari, F., and Newton, A.C. *Mol. Cell* **18**, 13-24 (2005).

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