



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# Product Information



## PH Domain Leucine-rich Repeat Protein Phosphatase Blocking Peptide

Item No. 10007192

Protein kinase B/Akt is critical in regulating cell growth and death. Phosphorylation of a serine residue (Ser<sup>473</sup>) in a C-terminal hydrophobic motif of Akt is known to be linked to some of the most common human cancers. PHLPP dephosphorylates the hydrophobic motif of Akt and thus reduces Akt activity, resulting in an increase in the number of apoptotic cells.<sup>1</sup> PHLPP 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 PHLPP into mice reduced tumor size by nearly 70% compared with control animals. mRNA of PHLPP is ubiquitously expressed, with highest levels found in brain.<sup>1</sup>

### Laboratory Procedures

This vial contains 200 µg peptide in 200 µl TBS, pH 7.4, containing 0.1% BSA and 0.02% sodium azide. The PHLPP blocking peptide (human PHLPP amino acids 1192-1205) can be used in conjunction with Cayman's PHLPP Polyclonal Antibody (Item No. 10007191) to block protein-antibody complex formation during immunochemical analysis of PHLPP.

Store this peptide solution at 4°C. It will be stable for at least two years. To block antibody/protein complex formation, the following procedure is recommended:

1. Mix the PHLPP Polyclonal Antibody (Item No. 10007191) and blocking peptide together in a 1:1 (v/v) ratio in a microfuge tube. For example, mix 20 µl of antibody and 20 µl of peptide.\*
2. Incubate for one hour at room temperature with occasional mixing.
3. Dilute the mixture to the final working antibody concentration and apply to the slide or membrane as usual.

\*This is a recommended mixture. The minimum amount of peptide needed for complete blocking has not been precisely determined and may vary depending on the sample being analyzed. The amount of peptide required may need to be increased if sufficient blocking does not occur.

### Reference

1. Gao, T., Furnari, F., and Newton, A.C. PHLPP: A phosphatase that directly dephosphorylates Akt, promotes apoptosis, and suppresses tumor growth. *Molecular Cell* **18**, 13-24 (2005).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/10007192](http://www.caymanchem.com/catalog/10007192)

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**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY. NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

#### MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman warrants **only** to the original customer that the material will **meet our specifications at the time of delivery.**

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have **any obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer's **exclusive remedy** and Cayman's sole liability hereunder shall be limited to a **refund** of the purchase price, or at Cayman's option, the **replacement**, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our **Warranty and Limitation of Remedy** located on our website and in our catalog.

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