



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

Product Information



PtdIns-(3,4,5)-P₃ (1,2-dipalmitoyl)-d₆₂ (sodium salt)

Item No. 9000414

Formal Name: 1-(1,2R-dihexadecanoyl (2,2',3,3',4,4',5,5',6,6',7,7',8,8',9,9',10,10',11,11',12,12',13,13',14,14',15,16,16-d₃₁) phosphatidyl)inositol-3,4,5-trisphosphate, tetrasodium salt

Synonyms: DPPI-3,4,5-P₃-d₆₂, Phosphatidylinositol-3,4,5-trisphosphate C16-d₆₂

MF: C₄₁H₁₆D₆₂O₂₂P₄ • 4Na

FW: 1,201.3

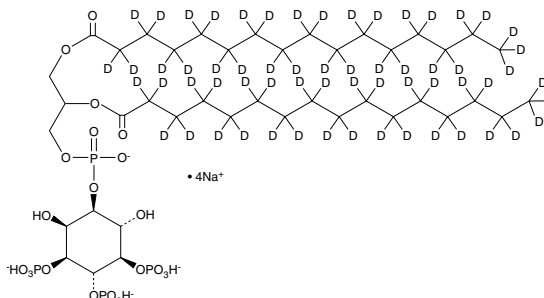
Chemical Purity: ≥98% PtdIns-(3,4,5)-P₃ (1,2-dipalmitoyl) (sodium salt)

Deuterium

Incorporation: ≥99% deuterated forms (d₁-d₆₂); ≤1% d₀

Stability: ≥2 years at -20°C

Supplied as: A lyophilized powder



Laboratory Procedures

PtdIns-(3,4,5)-P₃ (1,2-dipalmitoyl)-d₆₂ (sodium salt) contains 62 deuterium atoms at the 2, 2', 3, 3', 4, 4', 5, 5', 6, 6', 7, 7', 8, 8', 9, 9', 10, 10', 11, 11', 12, 12', 13, 13', 14, 14', 15, 15', 16, 16, and 16 positions of each fatty acyl chain. It is intended for use as an internal standard for the quantification of PtdIns-(3,4,5)-P₃ (1,2-dipalmitoyl)-d₆₂ by GC- or LC-mass spectrometry (MS). For long term storage, we suggest that PtdIns-(3,4,5)-P₃ (1,2-dipalmitoyl)-d₆₂ (sodium salt) be stored as supplied at -20°C. It should be stable for at least two years.

PtdIns-(3,4,5)-P₃ (1,2-dipalmitoyl)-d₆₂ (sodium salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the PtdIns-(3,4,5)-P₃ (1,2-dipalmitoyl)-d₆₂ (sodium salt) in water. The solubility of PtdIns-(3,4,5)-P₃ (1,2-dipalmitoyl)-d₆₂ (sodium salt) in water is approximately 10 mg/ml. PtdIns-(3,4,5)-P₃ (1,2-dipalmitoyl)-d₆₂ (sodium salt) will not be stable in aqueous solutions for more than 24 hours.

PtdIns-(3,4,5)-P₃ (1,2-dipalmitoyl)-d₆₂ (sodium salt) is used as an internal standard for the quantification of PtdIns-(3,4,5)-P₃ (1,2-dipalmitoyl)-d₆₂ (sodium salt) by stable isotope dilution MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

The phosphatidylinositol (PtdIns) phosphates represent a small percentage of total membrane phospholipids. However, they play a critical role in the generation and transmission of cellular signals.^{1,2} PtdIns-(3,4,5)-P₃ can serve as an anchor for the binding of signal transduction proteins bearing pleckstrin homology (PH) domains. Centuarin α and the Akt-family of GTPase activating proteins are examples of PtdIns-(3,4,5)-P₃-binding proteins.^{3,4} Protein-binding to PtdIns-(3,4,5)-P₃ is important for cytoskeletal rearrangements and membrane trafficking. PtdIns-(3,4,5)-P₃ is resistant to cleavage by PI-specific phospholipase C (PLC). Thus, it is likely to function in signal transduction as a modulator in its own right, rather than as a source of inositol tetraphosphates. For further reading on inositol phospholipids, see references 5 and 6.

References

1. Lapetina, E.G., Billah, M.M., and Cuatrecasas, P. *Nature* **292**, 367-369 (1981).
2. Majerus, P.W. *Annu. Rev. Biochem.* **61**, 225-250 (1992).
3. Tanaka, K., Imajoh-Ohmi, S., Sawada, T., *et al. Eur. J. Biochem.* **245**, 512-519 (1997).
4. Yang, X., Rudolf, M., Carew, M.A., *et al. J. Biol. Chem.* **274**, 18973-18980 (1999).
5. Pike, L.J. and Casey, L. *J. Biol. Chem.* **271**, 26453-26456 (1996).
6. Berridge, M.J. *Nature* **361**, 315-325 (1993).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/9000414

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.

Copyright Cayman Chemical Company, 05/31/2012

Cayman Chemical

Mailing address
1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone
(800) 364-9897
(734) 971-3335

Fax
(734) 971-3640

E-Mail
custserv@caymanchem.com

Web
www.caymanchem.com