

**Product Name:** Perifosine

**Catalog No.:** 6087

**Batch No.:** 1

CAS Number: 157716-52-4

IUPAC Name: Octadecyl-(1,1-dimethyl-4-piperidyl) phosphate

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:**  $C_{25}H_{52}NO_4P \cdot \frac{3}{4}H_2O$

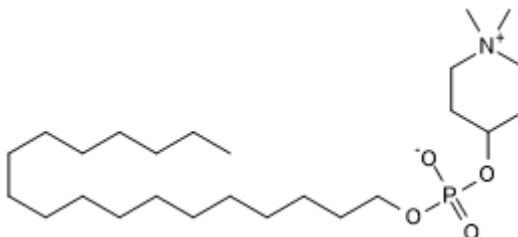
**Batch Molecular Weight:** 475.17

**Physical Appearance:** White solid

**Solubility:** water to 100 mM  
ethanol to 100 mM

**Storage:** Store at -20°C

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 100% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	63.19	11.35	2.95
Found	63.21	11.47	2.82

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**Description:**

PKB/Akt inhibitor; accumulates in and reorganizes lipid rafts disrupting Akt signaling. Also inhibits MAPK pathway and induces autophagy. Induces apoptosis in leukemia cell lines. Decreases  $K_v2.1$  current amplitude by modulating its inactivation gating. Antitumor. Orally bioavailable.

**Physical and Chemical Properties:**

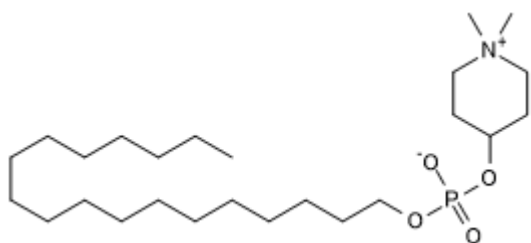
Batch Molecular Formula:  $C_{25}H_{52}NO_4P \cdot \frac{3}{4}H_2O$

Batch Molecular Weight: 475.17

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**Solubility & Usage Info:**

water to 100 mM  
ethanol to 100 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Delgado-Ramírez et al** (2016) Modulation of the voltage-gated potassium channel  $K_v2.1$  by the anti-tumor alkylphospholipid perifosine. *Pharmacol Rep.* **68** 457. PMID: 26922553.

**Fu et al** (2009) Perifosine inhibits mammalian target of rapamycin signaling through facilitating degradation of major components in the mTOR axis and induces autophagy. *Cancer Res.* **69** 8967. PMID: 19920197.

**Tazzari et al** (2008) Synergistic proapoptotic activity of recombinant TRAIL plus the Akt inhibitor Perifosine in acute myelogenous leukemia cells. *Cancer Res.* **68** 9394. PMID: 19010914.

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