

# Perifosine

## Akt Inhibitor

Catalog # tlr1-peri

For research use only

Version # 12I26-MM

### PRODUCT INFORMATION

#### Content:

- 5 mg Perifosine

#### Storage and stability:

- Perifosine is provided as a solid and shipped at room temperature. Store at -20°C. Solid product is stable 2 years at -20°C.

- Upon resuspension, prepare aliquots of perifosine and store at -20°C. Avoid repeated freeze-thaw cycles. Resuspended product is stable for 6 months when properly stored.

### CHEMICAL PROPERTIES

Synonym: KRX-0401

CAS number: 157716-52-4

Formula: C<sub>25</sub>H<sub>52</sub>NO<sub>4</sub>P

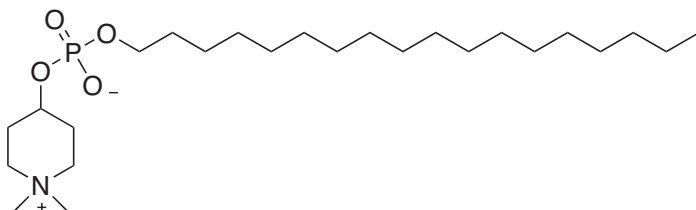
Molecular weight: 461.66

Solubility: 50 mg/ml in water with warming  
200 mg/ml in ethanol

Purity: >99% (NMR)

Working concentration: 5 - 50 µM

#### Structure:



### DESCRIPTION

Perifosine is an alkylphospholipid exhibiting antitumor activity. It induces cell cycle arrest and apoptosis through the inhibition of the serine-threonine protein kinase Akt (also known as protein kinase B)<sup>1</sup>. In addition, perifosine inhibits mTOR signaling through a different mechanism than classical mTOR inhibitors such as rapamycin<sup>2</sup>.

1. **Hideshima T. et al., 2006.** Perifosine, an oral bioactive novel alkylphospholipid, inhibits Akt and induces *in vitro* and *in vivo* cytotoxicity in human multiple myeloma cells. *Blood*. 107(10):4053-62.

2. **Sun SY., 2010.** Enhancing perifosine's anticancer efficacy by preventing autophagy. *Autophagy*. 2010 Jan;6(1):184-5. .

### METHODS

#### **Preparation of Perifosine stock solution (10 mM)**

1. Add 1.083 ml water to 5 mg perifosine.
2. Vortex until complete solubilization.
3. Prepare aliquots and store stock solution at -20°C.

### RELATED PRODUCTS

| Product                                   | Catalog Code |
|---|--------------|
| Rapamycin (mTOR inhibitor)                | tlrl-rap     |
| Everolimus (mTOR inhibitor)               | tlrl-eve     |
| SB203580 (p38 MAP kinase & Akt inhibitor) | tlrl-sb20    |

Other signal transduction inhibitors are available, for more information visit [www.invivogen.com/inhibitors](http://www.invivogen.com/inhibitors)

#### TECHNICAL SUPPORT

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