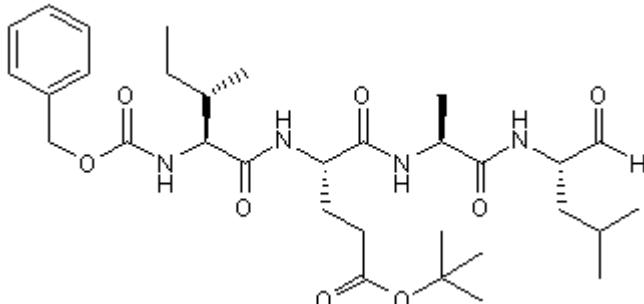


**Certificate of Analysis**[www.tocris.com](http://www.tocris.com)**Product Name:** PSI**Catalog No.:** 4045**Batch No.:** 1

CAS Number: 158442-41-2

IUPAC Name: *N*-[(Phenylmethoxy)carbonyl]-L-isoleucyl-L- $\alpha$ -glutamyl-*tert*-butyl ester-*N*[(1S)-1-formyl-3-methylbutyl]-L-alaninamide**1. PHYSICAL AND CHEMICAL PROPERTIES****Batch Molecular Formula:** C<sub>32</sub>H<sub>50</sub>N<sub>4</sub>O<sub>8</sub>·0.3H<sub>2</sub>O**Batch Molecular Weight:** 624.78**Physical Appearance:** White solid**Solubility:** DMSO to 30 mM**Storage:** Store at -20°C**Batch Molecular Structure:****2. ANALYTICAL DATA****HPLC:** Shows 92.1% purity**Microanalysis:** Carbon Hydrogen Nitrogen

Theoretical 61.58 8.17 8.98

Found 61.62 8.3 9

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Description:**

Proteasome inhibitor; inhibits chymotrypsin-like activity of the proteasome. Causes dopaminergic cell death in vitro. Prevents activation of NF- $\kappa$ B in response to TNF- $\alpha$  and okadaic acid (Cat. No. 1136) by inhibiting I $\kappa$ B- $\alpha$  degradation. Also inhibits NO production by LPS-activated macrophages.

**Physical and Chemical Properties:**

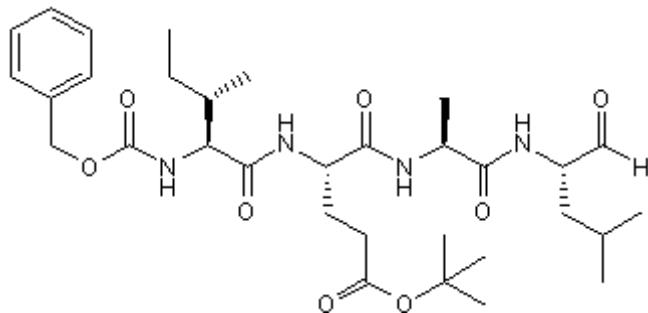
Batch Molecular Formula: C<sub>32</sub>H<sub>50</sub>N<sub>4</sub>O<sub>8</sub>.0.3H<sub>2</sub>O

Batch Molecular Weight: 624.78

Physical Appearance: White solid

**Minimum Purity:** >90%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO to 30 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:**

**Traenckner et al** (1994) A proteasome inhibitor prevents activation of NF- $\kappa$ B and stabilizes a newly phosphorylated form of I $\kappa$ B- $\alpha$  that is still bound to NF- $\kappa$ B. *EMBO J.* **13** 5433. PMID: 7957109.

**Griscavage et al** (1996) Inhibitors of the proteasome pathway interfere with induction of nitric oxide synthase in macrophages by blocking activation of transcription factor NF- $\kappa$ B. *Proc.Natl.Acad.Sci.USA* **93** 3308.

**Bukhatwa et al** (2009) An immunohistochemical and stereological analysis of PSI-induced nigral neuronal degeneration in the rat. *J.Neurochem.* **109** 52. PMID: 19187437.

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