

Certificate of Analysis

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Product Name: PSI

Catalog No.: 4045

Batch No.: 1

CAS Number: 158442-41-2

IUPAC Name: *N*-[(Phenylmethoxy)carbonyl]-L-isoleucyl-L- α -glutamyl-*tert*-butyl ester-*N*-[(1*S*)-1-formyl-3-methylbutyl]-L-alaninamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{32}H_{50}N_4O_8 \cdot 0.3H_2O$

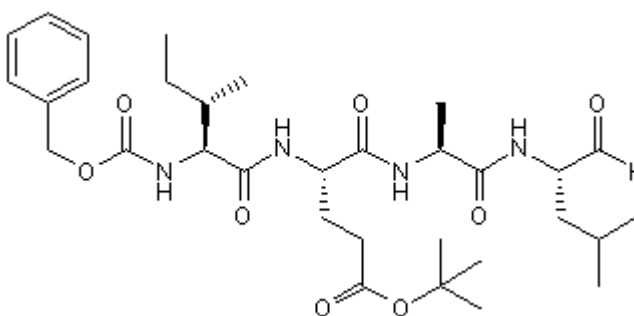
Batch Molecular Weight: 624.78

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- κ B in response to TNF- α and okadaic acid (Cat. No. 1136) by inhibiting I κ B- α degradation. Also inhibits NO production by LPS-activated macrophages.

Physical and Chemical Properties:

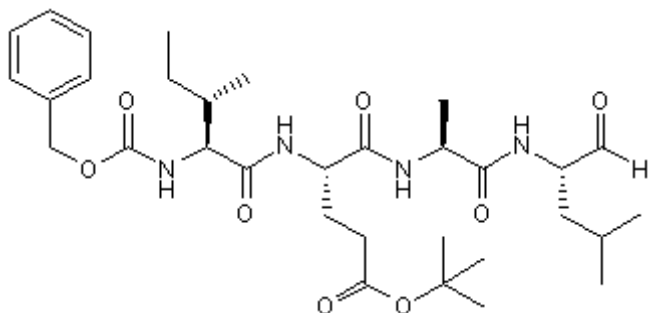
Batch Molecular Formula: C₃₂H₅₀N₄O₈.0.3H₂O

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- κ B and stabilizes a newly phosphorylated form of I κ B- α that is still bound to NF- κ 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- κ 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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bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel: +1 612 379 2956