

**Product Name:** Bortezomib

**Catalog No.:** 7282

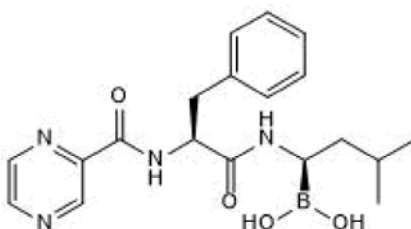
**Batch No.:** 1

CAS Number: 179324-69-7

IUPAC Name: *B*-[(1*R*)-3-Methyl-1-[[[(2*S*)-1-oxo-3-phenyl-2-[(2-pyrazinylcarbonyl)amino]propyl]amino]butyl]boronic acid

## 1. PHYSICAL AND CHEMICAL PROPERTIES

<b>Batch Molecular Formula:</b>	C <sub>19</sub> H <sub>25</sub> BN <sub>4</sub> O <sub>4</sub>
<b>Batch Molecular Weight:</b>	384.24
<b>Physical Appearance:</b>	White solid
<b>Solubility:</b>	DMSO to 50 mg/ml ethanol to 10 mg/ml
<b>Storage:</b>	Store at -20°C
<b>Batch Molecular Structure:</b>	



## 2. ANALYTICAL DATA

<b>HPLC:</b>	Shows 99.6% purity
<b><sup>1</sup>H NMR:</b>	Consistent with structure
<b>Mass Spectrum:</b>	Consistent with structure

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

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**Description:**

High affinity proteasome inhibitor ( $K_i = 0.6$  nM). Inhibits growth of multiple myeloma (MM) cell lines ( $IC_{50}$  values in <50 nM range); induces apoptosis in MM cell lines and MM patient derived cells, including p53 mutant cell lines. Decreases adherence of MM cells lines to bone marrow stromal cells (BMSCs). Acts synergistically with dexamethasone (Cat. No. 1126). Also cytotoxic in MCF-7 breast cancer cell line ( $IC_{50} = 50$  nM).

**Physical and Chemical Properties:**

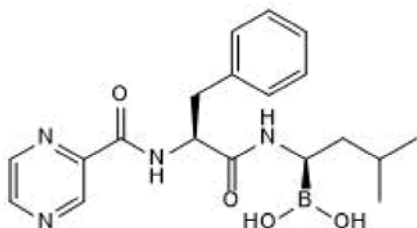
Batch Molecular Formula:  $C_{19}H_{25}BN_4O_4$

Batch Molecular Weight: 384.24

Physical Appearance: White solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO to 50 mg/ml

ethanol to 10 mg/ml

**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:**

**Hideshima *et al*** (2001) The proteasome inhibitor PS-341 inhibits growth, induces apoptosis, and overcomes drug resistance in human multiple myeloma cells. *Cancer Res.* **61** 3071. PMID: 11306489.

**Teicher *et al*** (1999) The proteasome inhibitor PS-341 in cancer therapy. *Clin.Cancer Res.* **5** 2638. PMID: 10499643.

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