

An R&D Systems Company

MATERIAL DATA SHEET

PS-341, *Synthetic* **Cat.** # **I-200**

The dipeptide-boronic acid analogue PS-341 is the active ingredient in Bortezomib (Velcade, Millennium Pharmaceuticals). This potent, cell permeable molecule inhibits primarily the chymotryptic activity of the proteasome without substantially altering tryptic or caspase-like activities. PS-341 inhibits proliferation of a number of tumor cell lines with nanomolar potency, and is approved by the USFDA for the treatment of multiple myeloma.

Product Information

Quantity: 5 mg

FW: 384

Structure:

Physical/Chemical Characteristics

Soluble in ethanol and DMSO to 200 mg/mL. Poorly soluble in water

(estimated 5-10 μ M).

Purity: > 99% by HPLC and TLC

Activity: $IC_{50} = 9 \text{ nM}$ reported for MM1.S multiple myeloma cell line (72 hour assay)

Use & Storage

Storage: Store lyophilized material at -20°C. Avoid multiple freeze/thaw cycles after

reconstitution.

Literature

References: Adams, J. and Kauffman, M. (2004) Cancer Invest. **22**: 304-311

Chauhan, D., et.al. (2005) Cancer Cell 8: 407-419

Horton, T.M., et al. (2006) Cancer Chemother Pharmacol 58: 13-23

Rev: 09/04/12

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