

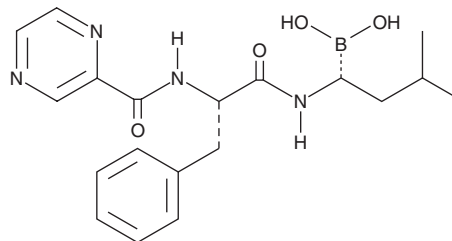
PRODUCT INFORMATION



Bortezomib

Item No. 10008822

CAS Registry No.: 179324-69-7
Formal Name: B-[(1R)-3-methyl-1-[[[(2S)-1-oxo-3-phenyl-2-[(2-pyrazinylcarbonyl)amino]propyl]amino]butyl]-boronic acid
Synonyms: LDP-341, MG-341, MLN341, NSC 681239, PS-341
MF: C₁₉H₂₅BN₄O₄
FW: 384.2
Purity: ≥95%
UV/Vis.: λ_{max}: 269 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Bortezomib is supplied as a crystalline solid. A stock solution may be made by dissolving the bortezomib in the solvent of choice, which should be purged with an inert gas. Bortezomib is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of bortezomib in these solvents is approximately 20 mg/ml.

Bortezomib is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, bortezomib should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Bortezomib has a solubility of approximately 0.1 mg/ml in a 1:5 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Bortezomib is a dipeptide boronic acid derivative that reversibly inhibits the 20S proteasome ($K_i = 0.6$ nM).¹ It binds the β5-subunit of the 20S proteasome and selectively inhibits chymotryptic activity.²⁻⁴ In part by blocking the degradation of tumor-suppressing and proapoptotic proteins, bortezomib drives cell cycle arrest and apoptosis in cancer cell lines and has applications in multiple myeloma and certain lymphomas, as well as other types of cancer.^{1,5} Proteasome inhibitors, including bortezomib, have potential in combination therapy with chemotherapy and radiation therapy against cancer.⁶⁻⁹

References

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WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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