Product Datasheet

Bortezomib

Catalog No. **BP-01928** · CAS **179324-69-7** · Form **free base** · Physical state **solid** · Color **White to off-white** · Version **1.0** · Revision **2026-09-03**

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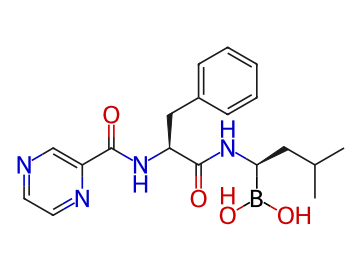
Target	Research area
Proteasome; NF-κB; Apoptosis; Autophagy; TREM receptor; Ligands for Target Protein for PROTAC	**Cancer**

Molecular formula	**$C_{19}H_{25}BN_4O_4$**
Molecular weight	**384.2370**

STRUCTURE



DESCRIPTION

Bortezomib (PS-341) is a reversible and selective proteasome inhibitor, and potently inhibits 20S proteasome (Ki=0.6 nM) by targeting a threonine residue. Bortezomib disrupts the cell cycle, induces apoptosis, and inhibits NF-κB. Bortezomib is the first proteasome inhibitor anticancer agent. Anti-cancer activity.

BIOLOGICAL ACTIVITY

In Vitro

Bortezomib (PS-341) (100 nM; 8 hours) results in the accumulation of cells in G2-M, with a corresponding decrease in the number of cells in G1.

Bortezomib (PS-341) (5-100 nM; 20 hours) induces apoptosis in mantle-cell lymphoma (MCL) cell lines.

Bortezomib (PS-341) (20 nM; 1-14 hours) induces Noxa up-regulation in both MCL cell lines.

The IC50 of Bortezomib (PS-341) is found to be 2.46 nM for 26S proteasome in the B16F10 cells.

Bortezomib (PS-341) suppresses several anti-apoptotic proteins (e.g., Bcl-XL, Bcl-2, and STAT-3).

In Vivo

Bortezomib (PS-341) (0.3-1 mg/kg; i.v.; once weekly for 4 weeks) inhibits PC-3 Tumor Growth in Nude Mice.

SOLUBILITY

Soluble in Ethanol : 66.67 mg/mL

DMSO : 50 mg/mL

REFERENCES

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