UBPBio
12635 E. Montview Blvd. Ste 100
Aurora, CO 80045, USA
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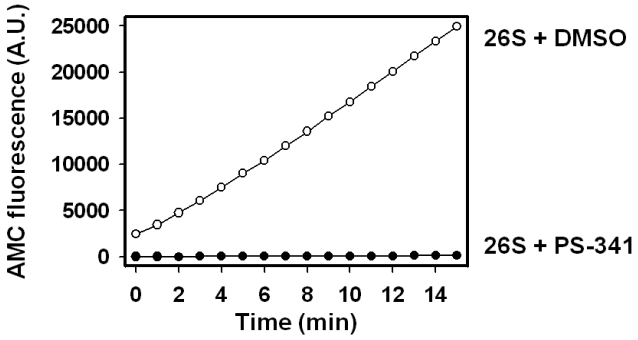
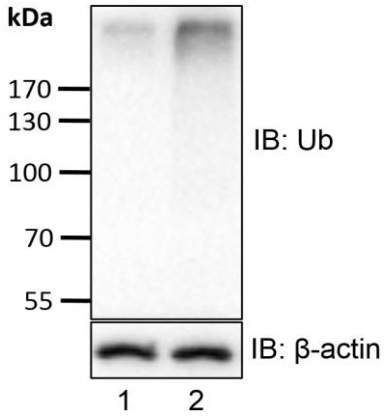
PS-341

Cat. # F1200, F1201, F1202

Also Known as: PS341; MG-341; MG341; Pyz-Phe-boroLeu
Formula: $C_{19}H_{25}BN_4O_4$
MW: 384.2 Da
CAS No.: 179324-69-7
Source: Synthetic
Form: Lyophilized powder
Solubility: Soluble in DMSO
Concentration: N/A
Quality Assurance: >98% by HPLC and NMR



100 nM bovine 26S proteasome (Cat. # A1200) was incubated with DMSO or with 10 µM PS-341 (Cat. # F1200) for 10 min at 37 °C in 20 mM Tris, pH 7.1, 50 mM NaCl, 2 mM ATP, 5 mM $MgCl_2$, 2 mM bME and 10% glycerol. The proteasome was then diluted 10X into 50 µM SUC-LLVY-AMC (Cat. # G1100) in a buffer containing 20 mM Tris, pH 7.1, 2 mM bME. The released AMC fluorescence was monitored by a plate reader.



Equal amount of whole cell lysates prepared from DMSO (lane 1) or 20 µM PS-341 (lane 2)-treated HEK293T cells were separated by SDS-PAGE and immunoblotted with an anti-Ub antibody. Cells were treated with DMSO or PS-341 for 4 hours.

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Description: PS-341 (also called Bortezomib) is a specific, reversible and cell permeable dipeptide boronic acid inhibitor of the chymotrypsin-like activity of the proteasome (Ki=0.6nM). It inhibits proliferation of various tumor cell lines with nanomolar potency. Its commercial version (Valcade from Millennium Pharmaceuticals) was approved by the USFDA for the treatment of relapsed multiple myeloma. The typical concentrations for cell culture use are 10-20 µM. For in vitro use, the typical concentrations are 50-100 µM.

Storage: Eligible for room temperature shipping. Store at -80°C upon receiving; avoid multiple freeze-thaw cycles after dissolving in DMSO.

Literature:

1. Yi-He Ling *et al* . (2002) Mol Cancer Ther, 1:841-849.
2. Adams J. (2002) The Oncologist, 7:9-16.
3. Ling, Y., *et al* . (2003).Clin.Cancer Res.9,1145-1154
4. Chauhan D. *et al* . (2005) Cancer Cell 8: 407-419
5. Dudek SA *et al* . (2010) J Virol. 84:9439-51