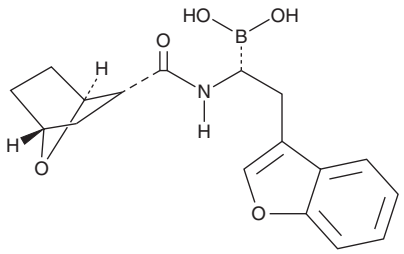
PRODUCT INFORMATION

M-3258

Item No. 38160

CAS Registry No.:	2285330-15-4
Formal Name:	B-[(1R)-2-(3-benzofuranyl)-1-[[(1S,2R,4R)-7-oxabicyclo[2.2.1]hept-2-ylcarbonyl]amino]ethyl]-boronic acid
MF:	$C_{17}H_{20}BNO_5$
FW:	329.2
Purity:	≥98%
UV/Vis.:	λ_{max}: 248 nm
Supplied as:	A 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

M-3258 is supplied as a solid. A stock solution may be made by dissolving the M-3258 in the solvent of choice, which should be purged with an inert gas. M-3258 is soluble in the organic solvent DMSO at a concentration of approximately 30 mg/ml.

Description

M-3258 is an inhibitor of the immunoproteasome subunit large multifunctional peptidase 7 (LMP7; IC_{50} = 4.1 nM).[1] It is selective for LMP7 over the 20S proteasomal catalytic subunits β1, -β2, and -β5 (IC_{50}s = >10,000, 2,519, and >10,000 nM, respectively), as well as LMP2 and proteosome subunit beta type 10 (PSMB10; IC_{50}s = >10,000 nM for both). It increases ubiquitinated protein levels (EC_{50} = 1,980 nM) and induces apoptosis in MM.1S multiple myeloma cells (EC_{50} = 420 nM). M-3258 (10 mg/kg per day) reduces tumor volume in U266B1, OPM-2, and RPMI-8226 mouse xenograft models of multiple myeloma.

Reference

1. Sanderson, M.P., Friese-Hamim, M., Walter-Bausch, G., *et al.* M3258 is a selective inhibitor of the immunoproteasome subunit LMP7 (β5i) delivering efficacy in multiple myeloma models. *Mol. Cancer Ther.* **20(8)**, 1378-1387 (2021).

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