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: C₁₇H₂₀BNO₅ 329.2

FW: **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; $IC_{50} = 4.1 \text{ nM}$). It is selective for LMP7 over the 20S proteasomal catalytic subunits $\beta 1$, - $\beta 2$, and - $\beta 5$ $(IC_{50}s = > 10,000, 2,519, and > 10,000 nM, respectively)$, as well as LMP2 and proteosome subunit beta type 10 (PSMB10; $IC_{50}s = >10,000 \text{ nM}$ for both). It increases ubiquitinated protein levels ($EC_{50} = 1,980 \text{ nM}$) 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).

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

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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