

PRODUCT INFORMATION



ONX 0912

Item No. 16269

CAS Registry No.: 935888-69-0
Formal Name: O-methyl-N-[(2-methyl-5-thiazolyl) carbonyl]-L-seryl-O-methyl-N-[(1S)-2-[(2R)-2-methyl-2-oxiranyl]-2-oxo-1-(phenylmethyl)ethyl]-L-serinamide

Synonyms: Oprozomib, PR-047

MF: C₂₅H₃₂N₄O₇S

FW: 532.6

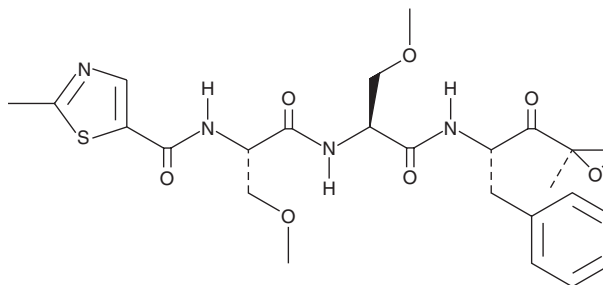
Purity: ≥98%

UV/Vis.: λ_{max}: 257 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

ONX 0912 is supplied as a crystalline solid. A stock solution may be made by dissolving the ONX 0912 in the solvent of choice, which should be purged with an inert gas. ONX 0912 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of ONX 0912 in these solvents is approximately 1, 5, and 10 mg/ml, respectively.

ONX 0912 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ONX 0912 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. ONX 0912 has a solubility of approximately 0.5 in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

ONX 0912 is an orally bioavailable proteasome inhibitor.¹ It potently targets the chymotrypsin-like activity of the 20S proteasome subunits β5 and LMP7 (IC₅₀s = 36 and 82 nM, respectively).¹ ONX 0912 inhibits the growth of multiple myeloma cells at nanomolar concentrations while not decreasing the viability of normal peripheral blood mononuclear cells at 1 μM.² It blocks the growth of xenografted human multiple myeloma cells in mice when given orally.² ONX 0912 has potential applications in certain types of cancer as well as other diseases that require proteasome activity.³⁻⁶

References

1. Zhou, H.J., Aujay, M.A., Bennett, M.K., *et al. J. Med. Chem.* **52**(9), 3028-3038 (2009).
2. Chauhan, D., Singh, A.V., Aujay, M., *et al. Blood* **116**(23), 4906-4915 (2010).
3. Mato, A.R., Feldman, T., and Goy, A. *Oncologist* **17**(5), 694-707 (2012).
4. Niewerth, D., Franke, N.E., Jansen, G., *et al. Haematologica* **98**(12), 1896-1904 (2013).
5. Gupta, S., Wang, L., Anderl, J., *et al. Hum. Mutat.* **34**(8), 1085-1093 (2013).
6. Dou, Q.P., and Zonder, J.A. *Curr. Cancer Drug Targets* **14**(6), 517-536 (2014).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM