

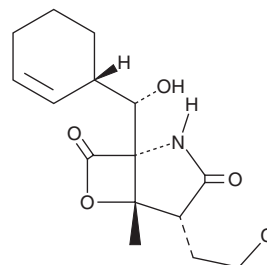
# PRODUCT INFORMATION



## Salinosporamide A

Item No. 10007311

**CAS Registry No.:** 437742-34-2  
**Formal Name:** (1R,4R,5S)-4-(2-chloroethyl)-1-[(S)-(1S)-2-cyclohexen-1-ylhydroxymethyl]-5-methyl-6-oxa-2-azabicyclo[3.2.0]heptane-3,7-dione  
**Synonyms:** Marizomib, ML-858, NPI-0052  
**MF:** C<sub>15</sub>H<sub>20</sub>ClNO<sub>4</sub>  
**FW:** 313.8  
**Purity:** ≥95%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



**Special Conditions:** Keep under inert gas. Protect from light. Protect from moisture and oxygen.

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Salinosporamide A is supplied as a solid. A stock solution may be made by dissolving the salinosporamide A in the solvent of choice, which should be purged with an inert gas. Salinosporamide A is soluble in the organic solvent DMSO.

### Description

Salinosporamide A is a natural proteasome inhibitor.<sup>1</sup> It is a  $\beta$ -lactone- $\gamma$ -lactam that irreversibly inhibits all three protease activities within the proteasome ( $IC_{50}S = 3.5, 28, \text{ and } 430 \text{ nM}$  for  $\beta 5$  (chymotrypsin),  $\beta 2$  (macropain), and  $\beta 1$  (C5) subunits, respectively), both *in vitro* and *in vivo*.<sup>2,3</sup> Salinosporamide A has potential applications in cancer therapy, particularly in combination with other chemotherapeutics.<sup>1,2</sup>

### References

1. Kubiczikova, L., Pour, L., Sedlarikova, L., *et al.* Proteasome inhibitors - molecular basis and current perspectives in multiple myeloma. *J. Cell. Mol. Med.* **18(6)**, 947-961 (2014).
2. Chauhan, D., Catley, L., Li, G., *et al.* A novel orally active proteasome inhibitor induces apoptosis in multiple myeloma cells with mechanisms distinct from bortezomib. *Cancer Cell* **8(5)**, 407-419 (2005).
3. Kale, A.J. and Moore, B.S. Molecular mechanisms of acquired proteasome inhibitor resistance. *J. Med. Chem.* **55(23)**, 10317-10327 (2012).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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