

# PRODUCT INFORMATION



## Berninamycin A

Item No. 18769

CAS Registry No.: 58798-97-3

Formal Name: L-threonyl-2-[(1Z)-1-amino-1-propen-1-yl]-5-methyl-4-oxazolecarbonyl-2,3-didehydroalanyl-3-methyl-L-threonyl-2-(1-aminoethenyl)-5-methyl-4-oxazolecarbonyl-2,3-didehydroalanyl-6-[2-(1-aminoethenyl)-4-oxazolyl]-5-(4-carboxy-2-thiazolyl)-2-pyridinecarbonyl-2,3-didehydroalanyl-2,3-didehydroalaninamide (7→1)-lactam

MF:  $C_{51}H_{51}N_{15}O_{15}S$

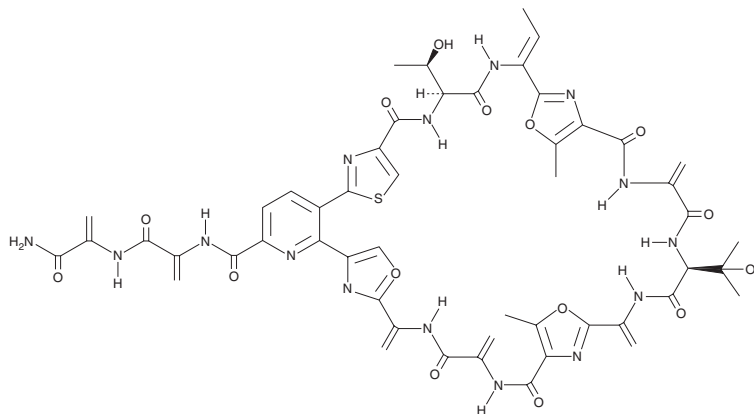
FW: 1,146.1

Purity:  $\geq 95\%$

Supplied as: A solid

Storage:  $-20^{\circ}\text{C}$

Stability:  $\geq 4$  years



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

### Laboratory Procedures

Berninamycin A is supplied as a solid. A stock solution may be made by dissolving the berninamycin A in the solvent of choice. Berninamycin A is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. Berninamycin A is also moderately soluble in ethanol.

### Description

Berninamycin A is a cyclic thiopeptide antibiotic first isolated from *S. bernensis*.<sup>1</sup> It inhibits protein biosynthesis in Gram positive bacteria through binding with ribosomal subunits.<sup>1,2</sup> Cyclic thiopeptide antibiotics, including berninamycin A, induce the transcriptional activator TipA in *Streptomyces*.<sup>3</sup>

### References

1. Lau, R.C.M. and Rinehart, K.L. Berninamycins B, C, and D, minor metabolites from *Streptomyces bernensis*. *J. Antibiot. (Tokyo)* **47(12)**, 1466-1472 (1994).
2. Thompson, J., Cundliffe, E., and Stark, M.J.R. The mode of action of berninamycin and mechanism of resistance in the producing organism, *Streptomyces bernensis*. *J. Gen. Microbiol.* **128(4)**, 875-884 (1982).
3. Chiu, M.L., Folcher, M., Katoh, T., et al. Broad spectrum thiopeptide recognition specificity of the *Streptomyces lividans* TipAL protein and its role in regulating gene expression. *J. Biol. Chem.* **274(29)**, 20578-20586 (1999).

#### 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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