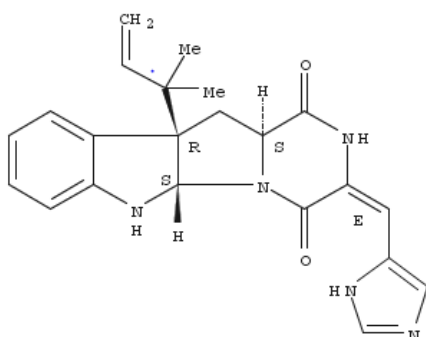


## Product Information

### Roquefortine C from *Penicillium roqueforti*

Catalog Number **SML0406**  
Storage Temperature  $-20\text{ }^{\circ}\text{C}$

CAS RN 58735-64-1  
Synonym: Roquefortine



### Product Description

Molecular formula:  $\text{C}_{22}\text{H}_{23}\text{N}_5\text{O}_2$   
Molecular weight: 389.45

Roquefortine C is a paralytic neurotoxin with a dioxopiperazine structure produced by a diverse range of fungi, most notably *Penicillium* species.<sup>1</sup> It has been found in blue cheese<sup>2</sup> and in many other food products due to natural occurrence and contamination.<sup>3</sup>

Roquefortine C was found to be active on a wide range of organisms. It inhibits the growth of Gram-positive bacteria, and cockerels treated with roquefortine lost their righting reflex and died within 8-12 hours.<sup>1-2</sup> Mice injected with roquefortine C experienced neurotoxicity.<sup>2</sup> Roquefortine C was also reported to inhibit cytochrome P450 as well as tubulin polymerization.<sup>4</sup>

Purity:  $\geq 98\%$  (HPLC)

### Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

### Preparation Instructions

Roquefortine C is soluble in methanol (10 mg/mL), DMSO (10 mg/mL), ethyl acetate (1 mg/mL), and chloroform (1 mg/mL).

### Storage/Stability

Store the product sealed at  $-20\text{ }^{\circ}\text{C}$ . Under these conditions the product is stable for at least 4 years.

A DMSO solution (10 mg/mL) is stable for 3 months at  $-20\text{ }^{\circ}\text{C}$ .

### References

1. Kopp-Holtwiesche, B., and Rehm, H.J., Antimicrobial action of roquefortine. *J. Environ. Pathol. Toxicol. Oncol.*, **10**, 41-44 (1990).
2. Wagener, R.E. et al., Penitrem A and Roquefortine Production by *Penicillium commune*. *App. Environ. Microbiol.*, **39**, 882-887 (1980).
3. Shangguan, N. et al., The total synthesis of roquefortine C and a rationale for the thermodynamic stability of isoroquefortine C over roquefortine C. *J. Am. Chem. Soc.*, **130**, 6281-6287 (2008).
4. Du, L. et al., Alkaloids from a deep ocean sediment-derived fungus *Penicillium* sp. and their antitumor activities. *J. Antibiot. (Tokyo)*, **63**, 165-170 (2010).

DWF,KAA,MAM 08/12-1