

# PRODUCT INFORMATION



## Kocurin

Item No. 29125

CAS Registry No.: 1374772-61-8

Formal Name: N-[[[(4R)-2-[(1S)-1-[[[2-[(1S)-1,3-diamino-3-oxopropyl]-4-thiazolyl]carbonyl]amino]-2-phenylethyl]-4,5-dihydro-4-thiazolyl]carbonyl]-L-tyrosyl-2-[5-(4-carboxy-5-methyl-2-oxazolyl)-6-[2'-(2S)-2-pyrrolidinyl[2,4'-bithiazol]-4-yl]-2-pyridinyl]-4-thiazolecarbonyl-2,3-didehydroalanyl-L-alanyl-L-prolyl-2,3-didehydroalanyl-2,3-didehydro-alaninamide (2→1)-lactam

Synonyms: Baringolin, PM181104

MF:  $C_{69}H_{66}N_{18}O_{13}S_5$

FW: 1,515.7

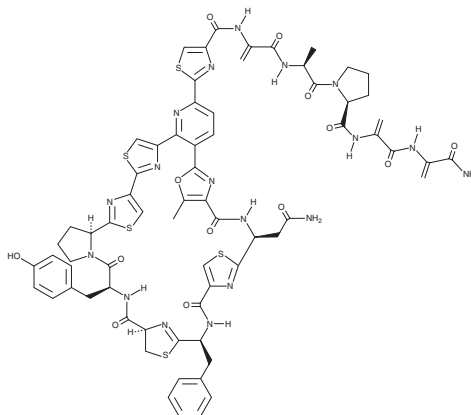
Purity:  $\geq 70\%$

Supplied as: A solid

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

Stability:  $\geq 2$  years

Item Origin: Bacterium/*Kocuria* sp.



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

## Laboratory Procedures

Kocurin is supplied as a solid. A stock solution may be made by dissolving the kocurin in the solvent of choice, which should be purged with an inert gas. Kocurin is soluble in ethanol, methanol, dichloromethane, and DMSO.

## Description

Kocurin is a thiazolyl peptide originally isolated from *K. palustris* and has antibiotic activity.<sup>1</sup> It is active against methicillin-resistant *S. aureus* (MRSA; MIC = 0.25  $\mu\text{g/ml}$ ), as well as *B. subtilis* and *E. faecium* in a solid agar test when used at a concentration of 8  $\mu\text{g/ml}$ . Kocurin is also active against *E. faecium*, *E. faecalis*, *S. epidermidis*, and clinical isolates of vancomycin-resistant enterococci (MICs = 0.004-1.025  $\mu\text{g/ml}$ ).<sup>2</sup> *In vivo*, kocurin (2.5, 5, and 10 mg/ml) increases survival in a mouse model of *E. faecium*-induced septicemia. It decreases the number of colony forming units (CFUs) in a mouse model of MRSA lung infection.

## References

1. Martin, J., da S. Sousa, T., Crespo, G., *et al.* Kocurin, the true structure of PM181104, an anti-methicillin-resistant *Staphylococcus aureus* (MRSA) thiazolyl peptide from the marine-derived bacterium *Kocuria palustris*. *Mar. Drugs* **11**(2), 387-398 (2013).
2. Mahajan, G., Thomas, B., Parab, R., *et al.* *In vitro* and *in vivo* activities of antibiotic PM181104. *Antimicrob. Agents Chemother.* **57**(11), 5315-5319 (2013).

### 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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