# **PRODUCT INFORMATION**



# Cyclo(L-Leu-L-Pro)

Item No. 24941

CAS Registry No.: 2873-36-1

Formal Name: (3S,8aS)-hexahydro-3-(2-methylpropyl)-

pyrrolo[1,2-a]pyrazine-1,4-dione

Synonym: Maculosin 6 MF:  $C_{11}H_{18}N_2O_2$ 210.3 FW: **Purity:** ≥95% Supplied as: A 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**

Cyclo(L-Leu-L-Pro) is supplied as a solid. A stock solution may be made by dissolving the cyclo(L-Leu-L-Pro) in the solvent of choice. Cyclo(L-Leu-L-Pro) is soluble in the organic solvent methanol, which should be purged with an inert gas, at a concentration of approximately 50 mg/ml.

## Description

Cyclo(L-Leu-L-Pro) is a diketopiperazine metabolite that has been isolated from various bacterial and fungal species including Streptomyces. 1 It is active against twelve strains of vancomycin-resistant enterococci (VRE) with MIC values of 12.5 µg/ml for E. faecalis strains K-99-34, K-00-184, and K-00-221.1 It also inhibits growth of K562, HL-60, and U937 leukemia cells in a concentration-dependent manner when used at concentrations of 1-500 µg/ml. Cyclo(L-Leu-L-Pro) also has antifouling activity, inhibiting attachment of B. amphitrite larva with an EC<sub>50</sub> value of 0.15 mM.<sup>2</sup>

#### References

- 1. Rhee, K.H. Isolation and characterization of Streptomyces sp KH-614 producing anti-VRE (vancomycin-resistant enterococci) antibiotics. J. Gen. Appl. Microbiol. 48(6), 321-327 (2002).
- 2. Li, X., Dobretsov, S., Xu, Y., et al. Antifouling diketopiperazines produced by a deep-sea bacterium, Streptomyces fungicidicus. Biofouling 22(3-4), 201-208 (2006).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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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