

PRODUCT INFORMATION



Deoxyenterocin

Item No. 25764

CAS Registry No.: 108605-51-2
Formal Name: (3S,4aR,5S,6S,7S,7aS)-7-benzoylhexahydro-4a,6,7a-trihydroxy-5-(4-methoxy-2-oxo-2H-pyran-6-yl)-3,6-methanocyclopenta[c]pyran-1(3H)-one

Synonym: 5-Deoxyenterocin

MF: C₂₂H₂₀O₉

FW: 428.4

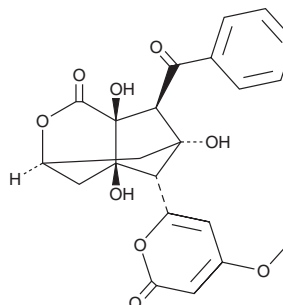
Purity: ≥99%

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years

Item Origin: Bacterium/*Streptomyces* sp.



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

Laboratory Procedures

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

Description

Deoxyenterocin is a bacterial metabolite originally isolated from *Streptomyces* that has diverse biological activities, including antibiotic, antiviral, and antioxidant properties.¹ It inhibits the growth of *S. lutea*, *S. aureus*, *K. pneumoniae*, and *V. percolans* *in vitro* when used at a concentration of 500 µg/ml. Deoxyenterocin (50 µg/ml) inhibits the cytopathic effect of influenza A H1N1 virus by 60.6% *in vitro*.² It also prevents hydrogen peroxide-induced decreases in glutathione (GSH) levels and in the mitochondrial membrane potential in mouse primary cortical neuronal cultures when used at a concentration of 1 µM.³

References

1. Yaginuma, S., Asahi, T., Muto, N., *et al.* Novel antibiotic 5-deoxyenterocin production by *Streptomyces* species and its antimicrobial activities. *Toyo Jozo Co., Ltd. JP 62056487 A*, (1987).
2. Liu, H., Chen, Z., Zhu, G., *et al.* Phenolic polyketides from the marine alga-derived *Streptomyces* sp. OUCMDZ-3434. *Tetrahedron* **73(36)**, 5451-5455 (2017).
3. Leiros, M., Alonso, E., Sanchez, J.A., *et al.* Mitigation of ROS insults by *Streptomyces* secondary metabolites in primary cortical neurons. *ACS Chem. Neurosci.* **5(1)**, 71-80 (2014).

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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