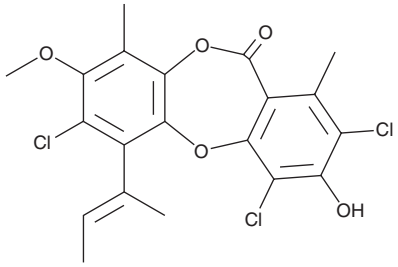
PRODUCT INFORMATION

Nidulin

Item No. 27955

CAS Registry No.:	10089-10-8
Formal Name:	2,4,7-trichloro-3-hydroxy-8-methoxy-1,9-dimethyl-6-[(1E)-1-methyl-1-propen-1-yl]-11H-dibenzo[b,e][1,4]dioxepin-11-one
Synonym:	Methylustin
MF:	$C_{20}H_{17}Cl_3O_5$
FW:	443.7
Purity:	≥99%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Fungus/*Emericella* sp.



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

Laboratory Procedures

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

Nidulin is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

Nidulin is a depsidone originally isolated from *A. nidulans*.[1] It is active against the bacteria *M. tuberculosis* and *M. ranoe*, as well as the fungi *T. tonsurans* and *M. audouini*. It also inhibits the growth of methicillin-resistant *S. aureus* (MRSA; MIC = 4 µg/ml).[2] Nidulin is cytotoxic to MOLT-3 cells (IC_{50} = 21.2 µM) but not HuCCA-1, HepG2, or A549 cells (IC_{50}s = >112.7 µM). It inhibits aromatase with an IC_{50} value of 11.2 µM.[3]

References

1. Dean, F.M., Roberston, A., Roberts, J.C., *et al.* Nidulin and 'Ustin': Two chlorine-containing metabolic products of *Aspergillus nidulans*. *Nature* **172(4372)**, 344 (1953).
2. Zhang, Y., Mu, J., Feng, Y., *et al*. Four chlorinated depsidones from a seaweed-derived strain of *Aspergillus unguis* and their new biological activities. *Nat. Prod. Res.* **28(7)**, 503-506 (2014).
3. Sureram, S., Wiyakrutta, S., Ngamrojanavanich, N., *et al*. Depsidones, aromatase inhibitors and radical scavenging agents from the marine-derived fungus *Aspergillus unguis* CRI282-03. *Planta Med*. **78(6)**, 582-588 (2012).

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