

PRODUCT INFORMATION

10'-Desmethoxystreptonigrin

Item No. 28065

CAS Registry No.: 136803-89-9

Formal Name: 5-amino-6-(7-amino-5,8-dihydro-6-methoxy-5,8-dioxo-2-quinoliny)-4-(2-hydroxy-3-methoxyphenyl)-3-methyl-2-pyridinecarboxylic acid

MF: $C_{24}H_{20}N_4O_7$

FW: 476.4

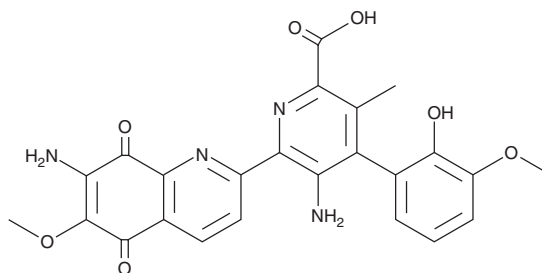
Purity: $\geq 95\%$

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

10'-Desmethoxystreptonigrin is supplied as a solid. A stock solution may be made by dissolving the 10'-desmethoxystreptonigrin in the solvent of choice, which should be purged with an inert gas. 10'-Desmethoxystreptonigrin is soluble in organic solvents such as ethanol, methanol, DMSO, and dimethyl formamide.

Description

10'-Desmethoxystreptonigrin is an antibiotic originally isolated from *Streptomyces* and a derivative of the antibiotic streptonigrin.¹ It is active against a variety of bacteria, including *S. aureus*, *S. faecalis*, *E. coli*, *K. pneumoniae*, and *P. vulgaris* (MICs = 0.4, 1.6, 3.1, 3.1, and 0.4 $\mu\text{g/ml}$, respectively).² 10'-Desmethoxystreptonigrin is cytotoxic to HCT116 colon and A2780 ovarian cancer cells (IC_{50}s = 0.004 and 0.001 $\mu\text{g/ml}$, respectively), as well as HCT116 cells resistant to etoposide (Item No. 12092) and teniposide (Item No. 14425) and cisplatin-resistant A2780 cells (IC_{50}s = 0.003, 0.001, and 0.01 $\mu\text{g/ml}$, respectively). 10'-Desmethoxystreptonigrin is also an inhibitor of p21ras farnesylation (IC_{50} = 21 nM).

References

1. Nakajima, M., Takahashi, H., Shimada, Y., et al. Novel antibiotic 10'-demethoxystreptonigrin and its manufacture with *Streptomyces ottagonensis*. Sankyo Co., Ltd. JP 03083980 A (1991).
2. Liu, W.C., Barbacid, M., Bulgar, M., et al. 10'-Desmethoxystreptonigrin, a novel analog of streptonigrin. J. Antibiot. (Tokyo) 45(4), 454-457 (1992).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM