

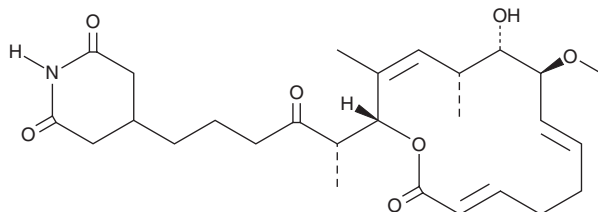
PRODUCT INFORMATION



Migrastatin

Item No. 32885

CAS Registry No.: 314245-65-3
Formal Name: 4-[(5S)-5-[(2R,3Z,5R,6S,7S,8E,12E)-6-hydroxy-7-methoxy-3,5-dimethyl-14-oxooxacyclotetradeca-3,8,12-trien-2-yl]-4-oxohexyl]-2,6-piperidinedione
Synonym: (+)-Migrastatin
MF: C₂₇H₃₉NO₇
FW: 489.6
Purity: ≥90%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Bacterium/*Streptomyces* sp. MK929-43F1



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

Laboratory Procedures

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

Description

Migrastatin is a bacterial metabolite that has been found in *Streptomyces* with antimuscarinic and anticancer activities.^{1,2} It binds to M₁₋₅ muscarinic acetylcholine receptors (K_is = >200, 200, 31, 43, and >200 μM, respectively) and inhibits calcium mobilization induced by carbamoylcholine (carbachol; Item No. 14486) in SK-N-SH cells (IC₅₀ = 28 μM), as well as in primary rat bladder smooth muscle cells.¹ Migrastatin inhibits the migration of EC17 esophageal cancer cells in a wound healing assay (IC₅₀ = 10 μg/ml) and 4T1 mouse mammary carcinoma cells in a chamber cell migration assay (IC₅₀ = 29 μM).² It enhances cytotoxicity induced by vinblastine (Item No. 11762) in vincristine-resistant P388/VCR cells.³

References

1. Nakae, K., Nishimura, Y., Ohba, S., *et al.* Migrastatin acts as a muscarinic acetylcholine receptor antagonist. *J. Antibiot. (Tokyo)* **59(11)**, 685-692 (2006).
2. Reymond, S. and Cossy, J. Migrastatin and analogues: New anti-metastatic agents. *C. R. Chim.* **11(11-12)**, 1447-1462 (2008).
3. Takemoto, Y., Tashiro, E., and Imoto, M. Suppression of multidrug resistance by migrastatin. *J. Antibiot. (Tokyo)* **59(7)**, 435-438 (2006).

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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