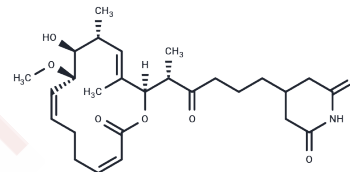


Migrastatin

Chemical Properties

CAS No. :	314245-65-3
Formula:	C ₂₇ H ₃₉ N ₁ O ₇
Molecular Weight:	489.609
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	Migrastatin is a bacterial metabolite that has been found in <i>Streptomyces</i> with antimuscarinic and anticancer activities. It binds to M1-5 muscarinic acetylcholine receptors ($K_{is} = >200, 200, 31, 43, \text{ and } >200 \mu\text{M}$, respectively) and inhibits calcium mobilization induced by carbamoylcholine in SK-N-SH cells ($IC_{50} = 28 \mu\text{M}$), as well as in primary rat bladder smooth muscle cells. Migrastatin inhibits the migration of EC17 esophageal cancer cells in a wound healing assay ($IC_{50} = 10 \mu\text{g/ml}$) and 4T1 mouse mammary carcinoma cells in a chamber cell migration assay ($IC_{50} = 29 \mu\text{M}$). It enhances cytotoxicity induced by vinblastine in vincristine-resistant P388/VCR cells.
Targets(IC_{50})	Others, Calcium Channel, AChR

Solubility Information

Solubility	DMF: Soluble Methanol: Soluble DMSO: Soluble ($< 1 \text{ mg/ml}$ refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0424 mL	10.2122 mL	20.4244 mL
5 mM	0.4085 mL	2.0424 mL	4.0849 mL
10 mM	0.2042 mL	1.0212 mL	2.0424 mL
50 mM	0.0408 mL	0.2042 mL	0.4085 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

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

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