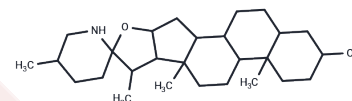


Tomatidine

Chemical Properties

CAS No. :	77-59-8
Formula:	C ₂₇ H ₄₅ NO ₂
Molecular Weight:	415.65
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	Tomatidine serves as an anti-inflammatory agent by inhibiting NF-κB and JNK signaling pathways. Additionally, it induces autophagy in both mammalian cells and <i>C. elegans</i> .
Targets(IC50)	NF-κB,Endogenous Metabolite,Autophagy,JNK
In vitro	Staphylococcus aureus (<i>S. aureus</i>) is responsible for difficult-to-treat and relapsing infections and constitutes one of the most problematic pathogens due to its multiple resistances to clinically available antibiotics. Additionally, the ability of <i>S. aureus</i> to develop small-colony variants is associated with a reduced susceptibility to aminoglycoside antibiotics and in vivo persistence. METHODS AND RESULTS: We have recently demonstrated that Tomatidine, a steroid alkaloid isolated from tomato plants, possesses anti-virulence activity against normal strains of <i>S. aureus</i> as well as the ability to potentiate the effect of aminoglycoside antibiotics. In addition, Tomatidine has shown antibiotic activity against small-colony variants of <i>S. aureus</i> . CONCLUSIONS: We herein report the first study of the structure-activity relationship of Tomatidine against <i>S. aureus</i> .

Solubility Information

Solubility	0.1 M HCl: < 1 mg/mL (insoluble) DMSO: 2.86 mg/mL (6.88 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4059 mL	12.0294 mL	24.0587 mL
5 mM	0.4812 mL	2.4059 mL	4.8117 mL
10 mM	0.2406 mL	1.2029 mL	2.4059 mL
50 mM	0.0481 mL	0.2406 mL	0.4812 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

Unraveling the structure-activity relationship of tomatidine, a steroid alkaloid with unique antibiotic properties against persistent forms of *Staphylococcus aureus*. *Eur J Med Chem*. 2014 Jun 10;80:605-20.

Tomatidine inhibits invasion of human lung adenocarcinoma cell A549 by reducing matrix metalloproteinases expression. *Chem Biol Interact*. 2013 May 25;203(3):580-7.

Tomatidine inhibits replication of *Staphylococcus aureus* small-colony variants in cystic fibrosis airway epithelial cells. *Antimicrob Agents Chemother*. 2011 May;55(5):1937-45.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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