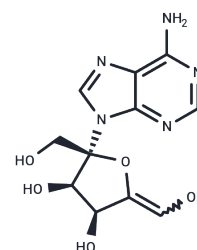


Decoyinine

Chemical Properties

CAS No. :	2004-04-8
Formula:	C ₁₁ H ₁₃ N ₅ O ₄
Molecular Weight:	279.25
Storage:	Keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Decoyinine (Decynylene), a selective inhibitor of GMP synthase, is a novel potential microbial insecticide, a secondary metabolite produced by <i>Streptomyces hygrosopicus</i> . Decoyinine induces resistance in rice to the small brown ladybug <i>Laodelphax striatellus</i> .
Targets(IC50)	Others,cGAS
In vitro	Decoyinine exerts a stimulatory effect on α -amylase synthesis only in the strain in which the catabolite repression component of α -amylase regulation has been rendered inoperable by the <i>gra-10</i> mutation. Decoyinine is an analog of adenosine which causes a decrease in intracellular GTP levels by inhibition of GMP synthetase. The apparent stimulation of α -amylase activity in WLN-11 by Decoyinine is not an artifactual effect exerted at the level of enzyme activity itself. At the concentration used in the experiments (1.07 mM), Decoyinine has no effect in vitro on <i>B. subtilis</i> WLN-11 α -amylase activity. At the same concentration, GMP exerts a slight inhibitory effect on α -amylase activity.[2]
In vivo	Decoyinine (Angustmycin A) treatment hinders tumor growth in xenograft mouse model. Like GMPS activity, the effect of Decoyinine does not appear to be subtype specific as it impairs growth of xenografts from cells harboring NRASQ61R (SK-Mel-103) or BRAFV600E (SK-Mel-28) mutations.[1]

Solubility Information

Solubility	DMSO: 45 mg/mL (161.15 mM),Sonication and heating to 60°C are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.581 mL	17.9051 mL	35.8102 mL
5 mM	0.7162 mL	3.581 mL	7.162 mL
10 mM	0.3581 mL	1.7905 mL	3.581 mL
50 mM	0.0716 mL	0.3581 mL	0.7162 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

A Bianchi-Smiraglia, et al. Pharmacological targeting of guanosine monophosphate synthase suppresses melanoma cell invasion and tumorigenicity. *Cell Death Differ.* 2015;22(11): 1858-1864.

W L Nicholson, et al. Effect of Decoyinine on the regulation of alpha-amylase synthesis in *Bacillus subtilis*. *J Bacteriol.* 1987;169(12): 5867-5869.

Shah AZ, et al. Decoyinine Induced Resistance in Rice against Small Brown Planthopper *Laodelphax striatellus*. *Insects.* 2022;13(1):104.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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