

Argifin

Chemical Properties

CAS No. : 243975-37-3

Formula: C₂₉H₄₁N₉O₁₀

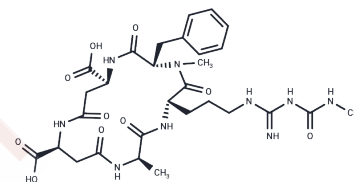
Molecular Weight: 675.70

Keep away from moisture, Keep away from direct sunlight

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	Argifin is a chitinase inhibitor produced by the metabolism of soil microorganisms, with inhibitory activity at the sub-nanomolar level; its IC ₅₀ values against <i>Serratia marcescens</i> chitinase A and B, <i>Aspergillus fumigatus</i> chitinase B1 and human chitotriosidase are 0.025 μM, 6.4 μM, 1.1 μM and 4.5 μM, respectively [1].
Targets(IC ₅₀)	Parasite
In vitro	Methods: The inhibitory activity of Argifin against <i>L. cuprina</i> chitinase was determined at 37°C and 20°C. Results: Argifin inhibited <i>L. cuprina</i> chitinase, with an IC ₅₀ of 3.7μM at 37°C and 0.10μM at 20°C[1].
In vivo	Methods: <i>L. cuprina</i> was treated with Argifin. Results: Argifin exhibited inhibitory effects on the ecdysis of <i>L. cuprina</i> [1].

Solubility Information

Solubility	DMSO: 80.00 mg/mL (118.40 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	1.4799 mL	7.3997 mL	14.7995 mL
5 mM	0.296 mL	1.4799 mL	2.9599 mL
10 mM	0.148 mL	0.740 mL	1.4799 mL
50 mM	0.0296 mL	0.148 mL	0.296 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

Hirose T, et al. Recent development of two chitinase inhibitors, Argifin and Argadin, produced by soil microorganisms. Proc Jpn Acad Ser B Phys Biol Sci. 2010;86(2):85102.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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