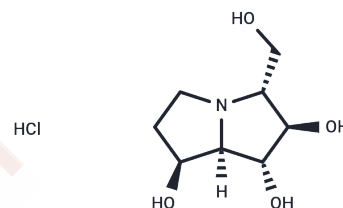


Australine (hydrochloride)

Chemical Properties

CAS No. :	186766-07-4
Formula:	C ₈ H ₁₆ ClNO ₄
Molecular Weight:	225.67
Storage:	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	Australine is a pyrrolizidine alkaloid originally isolated from <i>C. australis</i> that has enzyme inhibitory activities. 1,2,3 It is an inhibitor of glucoamylase (IC ₅₀ = 5.8 μM) that also inhibits glucosidase I, sucrase, maltase, and <i>A. niger</i> α-glucosidase (IC ₅₀ s = 20, 28, 35, and 28 μM, respectively). 2,3 Australine is selective for these enzymes over glucosidase II, α- and β-mannosidase, and α- and β-galactosidase up to 500 μM, β-glucosidase, with only 5% inhibition at 66 μM, as well as isomaltase and trehalase (IC ₅₀ = 97 and 160 μM, respectively). Australine (500 μg/ml) inhibits glycoprotein processing of viral glycoproteins in influenza virus-infected MDCK cells and induces the accumulation of glycoproteins. 2
Targets(IC ₅₀)	Others

Solubility Information

Solubility	H ₂ O: 20 mg/mL (88.62 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	4.4312 mL	22.1562 mL	44.3125 mL
5 mM	0.8862 mL	4.4312 mL	8.8625 mL
10 mM	0.4431 mL	2.2156 mL	4.4312 mL
50 mM	0.0886 mL	0.4431 mL	0.8862 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

Molyneux, R.J., Benson, M., Wong, R.Y., et al. Australine, a novel pyrrolizidine alkaloid glucosidase inhibitor from *Castanospermum australe*. *Nat. Prod.* 51(6)1198-1206(1988)

Tropea, J.E., Molyneux, R.J., Kaushal, G.P., et al. Australine, a pyrrolizidine alkaloid that inhibits amyloglucosidase and glycoprotein processing. *Biochemistry* 28(5)2027-2034(1989)

Kato, A., Kano, E., Adachi, I., et al. Australine and related alkaloids: easy structural confirmation by ¹³C NMR spectral data and biological activities. *Tetrahedron Asymmetry* 14(3)325-331(2003)

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