

Product Data Sheet

Product Name: Australine (hydrochloride)

Cat. No.: GC46896

Chemical Properties

Cas. No. 186766-07-4

SMILES OC[C@@H]1[C@@H](O)[C@H](O)[C@]2([H])N1CC[C@@H]2O.Cl

Formula C₈H₁₅NO₄.HCl

M.Wt 225.7

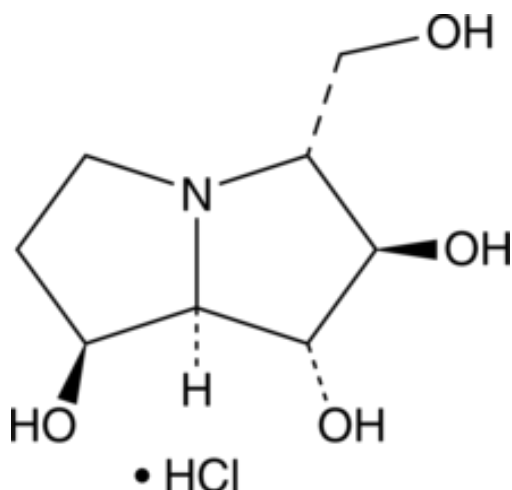
Solubility Water: 20 mg/ml

Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

Australine is a pyrrolizidine alkaloid originally isolated from *C. australe* that has enzyme inhibitory activities.^{1,2,3} It is an inhibitor of glucoamylase ($IC_{50} = 5.8 \mu M$) that also inhibits glucosidase I, sucrase, maltase, and *A. niger* 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 $\mu g/ml$) inhibits glycoprotein

Caution: Product has not been fully validated for medical applications. For research use only.

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processing of viral glycoproteins in influenza virus-infected MDCK cells and induces the accumulation of glycoproteins.²

1.Molyneux, R.J., Benson, M., Wong, R.Y., et al.Australine, a novel pyrrolizidine alkaloid glucosidase inhibitor from *Castanospermum australe*J. Nat. Prod.51(6)1198-1206(1988) 2.Tropea, J.E., Molyneux, R.J., Kaushal, G.P., et al.Australine, a pyrrolizidine alkaloid that inhibits amyloglucosidase and glycoprotein processingBiochemistry28(5)2027-2034(1989) 3.Kato, A., Kano, E., Adachi, I., et al.Australine and related alkaloids: easy structural confirmation by ¹³C NMR spectral data and biological activitiesTetrahedron Asymmetry14(3)325-331(2003)

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