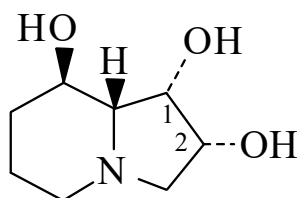




>>Entry Name: Swainsonine

Synonym(s): Octahydro-1,2,8-indolizinetriol, 9Cl. 1,2,8-Trihydroxyoctahydroindolizine. **Tridolgosir**, INN



CAS Registry Number: 72741-87-8

Related CAS Registry Numbers(s): 41431-34-9

Molecular Formula: $C_8H_{15}NO_3$

Molecular Weight: 173.211

Accurate Mass: 173.105194

Percentage Composition: C 55.47%; H 8.73%; N 8.09%; O 27.71%

Rhizoctonia leguminicola

Biological Use/Importance: Neurological α -mannosidase inhibitor. Potent toxin producing symptoms similar to the genetic disorder mannosidosis. Antineoplastic agent

Physical Description: Needles ($CHCl_3$)

Melting Point: Mp 144-145 dec. $^{\circ}$

Optical Rotation: $[\alpha]_D^{20} -85.1$ (c, 0.6 in MeOH) (synthetic)

Solubility: Sol. MeOH, $CHCl_3$; poorly sol. H_2O

pKa Value: pK_a 7.4

Other Data: The *Rhizoctonia leguminicola* isol. was originally assigned an isomeric struct. (Guengerich *et al*, 1973, revised by Schneider *et al*, 1983)

Sigma: S6640

>>Derivative: Hydrochloride

Synonym(s): **Tridolgosir hydrochloride**, USAN. GD 0039

CAS Registry Number: 214462-68-7

Physical Description: Cryst. (MeOH/ Et_2O)

Melting Point: Mp 190-191 $^{\circ}$

Solubility: Sol. H_2O (3g/ml)

>>Derivative: N-Oxide

Synonym(s): Swainsonine N-oxide

CAS Registry Number: 81759-44-6

Molecular Formula: $C_8H_{15}NO_4$

Molecular Weight: 189.211

Accurate Mass: 189.100109

Percentage Composition: C 50.78%; H 7.99%; N 7.40%; O 33.82%

Biological Source: Alkaloid from above-ground parts of *Astragalus lentiginosus* (Leguminosae)

Physical Description: Hygroscopic, pale yellow prisms (Me_2CO)

Melting Point: Mp 161-163 $^{\circ}$

>>Derivative: Tri-Ac

Molecular Formula: $C_{14}H_{21}NO_6$

Molecular Weight: 299.323

Accurate Mass: 299.136889

Percentage Composition: C 56.18%; H 7.07%; N 4.68%; O 32.07%

Physical Description: Pale yellow oil

Other Data: Dec. rapidly on standing in air

>>Derivative: 8-Deoxy