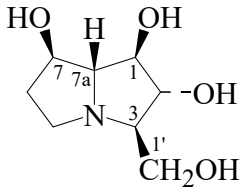
>>**Entry Name: 1,2,7-Trihydroxy-3-(hydroxymethyl)-1*H*-pyrrolizidine**
Synonym(s): Hexahydro-1,2,7-trihydroxy-1*H*-pyrrolizine-3-methanol



(1*R*,2*R*,3*R*,7*R*,7a*R*)-*form*

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%

>>**Variant:** (1*R*,2*R*,3*R*,7*R*,7a*R*)(?)-form
Synonym(s): 7,8-Diepialexine. 7,7*a*-Diepialexine. 7-Epiaustraline

CAS Registry Number: 126655-21-8
Extra CAS Registry Numbers(s): 126655-01-4

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%

Use/Importance: Weak inhibitor of glucosidase activity
Physical Description: Oil (natural), cryst. (synthetic)
Melting Point: Mp 193-194° (synthetic)
Optical Rotation: $[\alpha]_D^{20}$+11.6 (c, 0.37 in H_2O) (nat.). $[\alpha]_D^{23}$–13 (c, 0.55 in H_2O) (synthetic)
Calculated Log P Data: Log P –2.17 (calc)
Other Data: The assigned struct. of the nat. alkaloid is incorrect as it was not identical with the synthetic material. No alternative struct. has been proposed (1998)

>>**Variant:** (1*R*,2*R*,3*R*,7*R*,7a*S*)-form

CAS Registry Number: 121588-45-2
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%
Source/Synthesis: Synthetic
Physical Description: Syrup
Optical Rotation: $[\alpha]_D^{20}$–10.6 (c, 0.56 in H_2O)

>>**Variant:** (1*R*,2*R*,3*R*,7*S*,7a*R*)-form
Synonym(s): Australine. 8-Epialexine. 7*a*-Epialexine

CAS Registry Number: 118396-02-4

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%

Use/Importance: Potent and specific inhibitor of amyloglucosidase
Physical Description: Prisms (Me_2CO)
Melting Point: Mp 148-149°
Optical Rotation: $[\alpha]_D^{26}$+19.3 (c, 2.09 in MeOH)
Solubility: BERDY SOL: Sol. H_2O, MeOH
UV: [neutral] λ_{max} (H_2O) (Berdy)