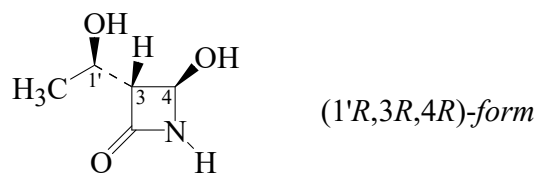




>>Entry Name: 4-Hydroxy-3-(1-hydroxyethyl)-2-azetidinone



Related CAS Registry Numbers(s): 81275-02-7 85954-95-6

Molecular Formula: C₅H₉NO₃

Molecular Weight: 131.131

Accurate Mass: 131.058244

Percentage Composition: C 45.80%; H 6.92%; N 10.68%; O 36.60%

>>Variant: (1'R,3R,4R)-form

Molecular Formula: C₅H₉NO₃

Molecular Weight: 131.131

Accurate Mass: 131.058244

Percentage Composition: C 45.80%; H 6.92%; N 10.68%; O 36.60%

>>Derivative: 4-O-Ac

CAS Registry Number: 82938-53-2

Molecular Formula: C₇H₁₁NO₄

Molecular Weight: 173.168

Accurate Mass: 173.068809

Percentage Composition: C 48.55%; H 6.40%; N 8.09%; O 36.96%

Physical Description: Cryst.

Melting Point: Mp 113-114°

Optical Rotation: $[\alpha]_D^{20} +78$ (c, 1.07 in MeOH)

>>Derivative: 4-O-Ac, 1'-O-(*tert*-butyldimethylsilyl)

CAS Registry Number: 76855-69-1

Molecular Formula: C₁₃H₂₅NO₄Si

Molecular Weight: 287.43

Accurate Mass: 287.155286

Percentage Composition: C 54.32%; H 8.77%; N 4.87%; O 22.27%; Si 9.77%

Use/Importance: Key intermed. in the synth. of carbapenem antibiotics

Physical Description: Cryst.

Melting Point: Mp 108-109°

Optical Rotation: $[\alpha]_D^{20} +45.1$ (c, 1.07 in CHCl₃)

>>Variant: (1'R,3R,4S)-form

Molecular Formula: C₅H₉NO₃

Molecular Weight: 131.131

Accurate Mass: 131.058244

Percentage Composition: C 45.80%; H 6.92%; N 10.68%; O 36.60%

>>Derivative: 4-O-Ac, 1'-O-(*tert*-butyldimethylsilyl)

CAS Registry Number: 76899-07-5

Molecular Formula: C₁₃H₂₅NO₄Si

Molecular Weight: 287.43

Accurate Mass: 287.155286

Percentage Composition: C 54.32%; H 8.77%; N 4.87%; O 22.27%; Si 9.77%

Physical Description: Needles (hexane)

Melting Point: Mp 52-53°

Optical Rotation: $[\alpha]_D^{23} -119.1$ (c, 2 in EtOH)