



Molecular Formula: C₂₁H₂₂N₂O₆
Molecular Weight: 398.415
Accurate Mass: 398.147788
Percentage Composition: C 63.31%; H 5.57%; N 7.03%; O 24.09%
Biological Source: Constit. of *Medicago sativa*
Optical Rotation: [α]_D +34.5 (c, 0.4 in EtOH)

>> **Variant:** DL-form

CAS Registry Number: 721-66-4
Molecular Formula: C₁₁H₁₄N₂O₃
Molecular Weight: 222.243
Accurate Mass: 222.100443
Percentage Composition: C 59.45%; H 6.35%; N 12.60%; O 21.60%
Physical Description: Cryst. (EtOH aq.)
Sigma: G2627

>> **Derivative:** *N*-Benzyloxycarbonyl

CAS Registry Number: 5540-03-4
Physical Description: Cryst. (EtOH aq.)
Melting Point: Mp 162.5-163.5°

>> **Derivative:** Benzyloxycarbonyl, Et ester

CAS Registry Number: 5276-61-9
Molecular Formula: C₂₁H₂₄N₂O₅
Molecular Weight: 384.431
Accurate Mass: 384.168523
Percentage Composition: C 65.61%; H 6.29%; N 7.29%; O 20.81%
Physical Description: Cryst. (C₆H₆/petrol)
Melting Point: Mp 92°

References:

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Katakai, R. *et al.*, *J.O.C.*, 1972, **37**, 327, (*synth*)
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