



>>Entry Name: Fluorenylmethylenoxycarbonyl isoleucine

Synonym(s): *N*-[(9*H*-Fluoren-9-ylmethoxy)carbonyl]isoleucine, 9Cl. FmocIleOH

Molecular Formula: C₂₁H₂₃NO₄

Molecular Weight: 353.417

Accurate Mass: 353.162709

Percentage Composition: C 71.37%; H 6.56%; N 3.96%; O 18.11%

General Statement: Deriv. of 9-Fluorenyl methyl chloroformate [DMJ03-G](#)

>>Variant: L-form

CAS Registry Number: 71989-23-6

Molecular Formula: C₂₁H₂₃NO₄

Molecular Weight: 353.417

Accurate Mass: 353.162709

Percentage Composition: C 71.37%; H 6.56%; N 3.96%; O 18.11%

Melting Point: Mp 145-147°

Optical Rotation: [α]_D +9.8 (c, 1 in EtOAc)

Aldrich: 40863-8

Fluka: 47628

Sigma: F6763

>>Derivative: 2-Nitrophenyl ester

CAS Registry Number: 71989-24-7

Melting Point: Mp 101-103°

Optical Rotation: [α]_D²² -45.4 (c, 1.2 in 99:1 DMF/AcOH)

>>Derivative: Fluoride

CAS Registry Number: 130858-95-6

Molecular Formula: C₂₁H₂₂FNO₃

Molecular Weight: 355.408

Accurate Mass: 355.158372

Percentage Composition: C 70.97%; H 6.24%; F 5.35%; N 3.94%; O 13.51%

Use/Importance: Used in peptide synthesis

Melting Point: Mp 115-116°

Optical Rotation: [α]_D²³ +15.6 (c, 0.5 in EtOAc)

References:

Chang, C.-D. *et al.*, *Int. J. Pept. Protein Res.*, 1980, **15**, 59

Bodanszky, A. *et al.*, *J.O.C.*, 1980, **45**, 72

Carpino, L.A. *et al.*, *J.A.C.S.*, 1990, **112**, 9651-9652, (*fluoride*)