



>>Entry Name: Fluorenylmethylenoxycarbonylproline

Synonym(s): 1,2-Pyrrolidinedicarboxylic acid 1-(9*H*-fluoren-9-ylmethyl) ester, 9Cl. *N*-[(9*H*-Fluoren-9-ylmethoxy)carbonyl]proline. FmocProOH

Related CAS Registry Numbers(s): 125281-38-1

Molecular Formula: C₂₀H₁₉NO₄

Molecular Weight: 337.374

Accurate Mass: 337.131409

Percentage Composition: C 71.20%; H 5.68%; N 4.15%; O 18.97%

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

>>Variant: L-form

CAS Registry Number: 71989-31-6

Molecular Formula: C₂₀H₁₉NO₄

Molecular Weight: 337.374

Accurate Mass: 337.131409

Percentage Composition: C 71.20%; H 5.68%; N 4.15%; O 18.97%

Melting Point: Mp 114-115°

Optical Rotation: [α]_D -33.9 (c, 1 in DMF)

Aldrich: 33834-6

Fluka: 47636

Sigma: F6014

>>Derivative: 4-Nitrophenyl ester

Synonym(s): FmocProONp

CAS Registry Number: 71989-32-7

Melting Point: Mp 112-113°

Optical Rotation: [α]_D -62.7 (c, 1.2 in 99:1 DMF/AcOH)

>>Derivative: Pentafluorophenyl ester

CAS Registry Number: 86060-90-4

Molecular Formula: C₂₆H₁₈F₅NO₄

Molecular Weight: 503.425

Accurate Mass: 503.115599

Percentage Composition: C 62.03%; H 3.60%; F 18.87%; N 2.78%; O 12.71%

Physical Description: Cryst. (EtOAc)

Melting Point: Mp 127-129°

Optical Rotation: [α]_D²⁵ -59.2 (c, 1 in CHCl₃)

>>Derivative: Fluoride

CAS Registry Number: 130858-96-7

Molecular Formula: C₂₀H₁₈FNO₃

Molecular Weight: 339.366

Accurate Mass: 339.127072

Percentage Composition: C 70.79%; H 5.35%; F 5.60%; N 4.13%; O 14.14%

Use/Importance: Used in peptide synthesis

Melting Point: Mp 88-89°

Optical Rotation: [α]_D²⁴ -28.6 (c, 0.5 in EtOAc)

References:

Aldrich Library of 13C and 1H FT NMR Spectra, 1992, **2**, 1428B, (*nmr*)

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

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

Kisfaludy, L. *et al.*, *Synthesis*, 1983, 325, (*pentafluorophenyl ester*)

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