



>>Entry Name: Fluorenylmethylenoxycarbonylaspartic acid

Synonym(s): *N*-[(9*H*-Fluoren-9-ylmethoxy)carbonyl]aspartic acid. FmocAspOH

Molecular Formula: C₁₉H₁₇NO₆

Molecular Weight: 355.346

Accurate Mass: 355.105589

Percentage Composition: C 64.22%; H 4.82%; N 3.94%; O 27.01%

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

>>Variant: L-form

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Molecular Weight: 355.346

Accurate Mass: 355.105589

Percentage Composition: C 64.22%; H 4.82%; N 3.94%; O 27.01%

>>Derivative: 4-*tert*-Butyl ester

Synonym(s): FmocAsp(Bu^t)OH

CAS Registry Number: 71989-14-5

Melting Point: Mp 148-149°

Optical Rotation: [α]_D +9.1 (c, 1 in DMF)

Fluka: 47618

Sigma: F9132

>>Derivative: 4-*tert*-Butyl ester, 1-(4-nitrophenyl) ester

Synonym(s): FmocAsp(Bu^t)ONp

CAS Registry Number: 71989-15-6

Physical Description: Amorph. solid

Melting Point: Mp 45-50°

Optical Rotation: [α]_D -34.2 (c, 1.2 in DMF + 1% AcOH)

>>Derivative: 4-Benzyl ester, 1-(2,4,5-trichlorophenyl) ester

Synonym(s): FmocAsp(Bzl)OTcP

CAS Registry Number: 71359-85-8

Melting Point: Mp 99-101°

>>Derivative: Fluoride, 4-*tert*-butyl ester

CAS Registry Number: 130859-01-7

Molecular Formula: C₂₃H₂₄FNO₅

Molecular Weight: 413.445

Accurate Mass: 413.163852

Percentage Composition: C 66.82%; H 5.85%; F 4.60%; N 3.39%; O 19.35%

Use/Importance: Used in peptide synthesis

Melting Point: Mp 74-75°

Optical Rotation: [α]_D²³ +4 (c, 0.5 in EtOAc)

References:

Bodanszky, M. *et al.*, *J.O.C.*, 1979, **44**, 3596; 1980, **45**, 72

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

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