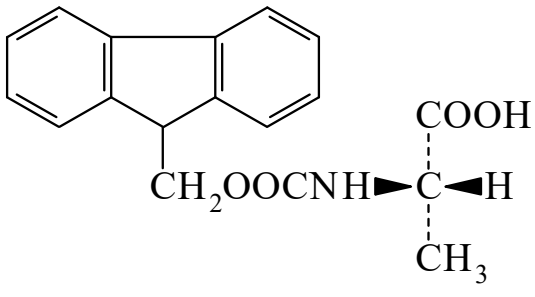
>>**Entry Name: Fluorenylmethylenoxycarbonylalanine**
Synonym(s): *N*-[(9*H*-Fluoren-9-ylmethoxy)carbonyl]alanine, 9Cl. FmocAlaOH



Molecular Formula: $C_{18}H_{17}NO_4$
Molecular Weight: 311.337
Accurate Mass: 311.115759
Percentage Composition: C 69.44%; H 5.50%; N 4.50%; O 20.56%
General Statement: Deriv. of 9-Fluorenyl methyl chloroformate DMJ03-G

>>**Variant:** L-form

CAS Registry Number: 35661-39-3
Molecular Formula: $C_{18}H_{17}NO_4$
Molecular Weight: 311.337
Accurate Mass: 311.115759
Percentage Composition: C 69.44%; H 5.50%; N 4.50%; O 20.56%
Melting Point: Mp 144-145°
Optical Rotation: $[\alpha]_D^{28}$ –3.48 (c, 2.5 in EtOAc)
Fluka: 47616
Sigma: F6888

>>**Derivative:** *tert*-Butyl ester
Synonym(s): FmocAlaOBu^t

CAS Registry Number: 71953-00-9
Melting Point: Mp 84-85°
Optical Rotation: $[\alpha]_D^{25}$ +1 (c, 2 in $CHCl_3$)

>>**Derivative:** Piperidyl ester
Synonym(s): FmocAlaOPip

CAS Registry Number: 35820-67-8
Melting Point: Mp 48-50°
Optical Rotation: $[\alpha]_D$ +4.65 (c, 2.5 in EtOAc)

>>**Derivative:** 4-Nitrophenyl ester
Synonym(s): FmocAlaONp

CAS Registry Number: 71989-13-4
Melting Point: Mp 166-167°
Optical Rotation: $[\alpha]_D^{22}$ –41.5 (c, 1-2 in DMF + 1% AcOH)

>>**Derivative:** Fluoride

CAS Registry Number: 130858-92-3
Molecular Formula: $C_{18}H_{16}FNO_3$
Molecular Weight: 313.328
Accurate Mass: 313.111422
Percentage Composition: C 69.00%; H 5.15%; F 6.06%; N 4.47%; O 15.32%
Use/Importance: Used in peptide synthesis
Melting Point: Mp 111-112°
Optical Rotation: $[\alpha]_D^{23}$ +3.6 (c, 0.5 in EtOAc)

References:

Carpino, L.A. *et al.*, *J.O.C.*, 1972, **37**, 3404, *(synth, piperidyl)*
Chang, C.-D. *et al.*, *Int. J. Pept. Protein Res.*, 1980, **15**, 59, *(butyl ester)*
Bodanszky, M. *et al.*, *J.O.C.*, 1980, **45**, 72, *(nitrophenyl)*
Carpino, L.A. *et al.*, *J.A.C.S.*, 1990, **112**, 9651-9652, *(fluoride)*