



>>Entry Name: Fluorenylmethyloxycarbonyllysine

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

Molecular Formula: C₂₁H₂₄N₂O₄

Molecular Weight: 368.432

Accurate Mass: 368.173608

Percentage Composition: C 68.46%; H 6.57%; N 7.60%; O 17.37%

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

>>Variant: L-form

Molecular Formula: C₂₁H₂₄N₂O₄

Molecular Weight: 368.432

Accurate Mass: 368.173608

Percentage Composition: C 68.46%; H 6.57%; N 7.60%; O 17.37%

>>Derivative: *N*⁶-*tert*-Butyloxycarbonyl

Synonym(s): FmocLys(BOC)OH

CAS Registry Number: 71989-26-9

Melting Point: Mp 123-124°

Optical Rotation: [α]_D -11.7 (c, 1 in DMF)

Fluka: 47624

Sigma: F1133

>>Derivative: *N*⁶-*tert*-Butyloxycarbonyl, 4-nitrophenyl ester

Synonym(s): FmocLys(BOC)ONp

CAS Registry Number: 71989-27-0

Melting Point: Mp 105-107°

Optical Rotation: [α]_D²² -35.3 (c, 1.2 in 99:1 DMF/AcOH)

>>Derivative: *N*⁶-*tert*-butyloxycarbonyl, fluoride

CAS Registry Number: 130859-00-6

Molecular Formula: C₂₆H₃₁FN₂O₅

Molecular Weight: 470.54

Accurate Mass: 470.221701

Percentage Composition: C 66.37%; H 6.64%; F 4.04%; N 5.95%; O 17.00%

Biological Use/Importance: Used in peptide synthesis

Physical Description: Cryst.

Melting Point: Mp 128-130°

Optical Rotation: [α]_D²⁴ -2.2 (c, 0.5 in CH₂Cl₂)

>>Derivative: *N*⁶-(3-Nitro-2-pyridinesulfonyl)

Synonym(s): FmocLys(Npys)OH

CAS Registry Number: 76863-85-9

Melting Point: Mp 112-115 dec.°

Optical Rotation: [α]_D +32.1 (c, 1 in MeOH)

References:

- Chang, C.-D. *et al.*, *Int. J. Pept. Protein Res.*, 1980, **15**, 59-66, (*tert*-butyloxycarbonyl)
Matsueda, R. *et al.*, *Int. J. Pept. Protein Res.*, 1980, **16**, 392-401, (*nitropyridinesulfonyl*)
Carpino, L.A. *et al.*, *J.A.C.S.*, 1990, **112**, 9651-9652, (*fluoride-tert*-butyloxycarbonyl)
Wiejak, S. *et al.*, *Chem. Pharm. Bull.*, 1999, **47**, 1489-1490, (*tert*-butyloxycarbonyl)