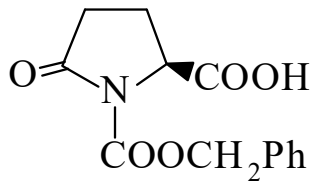
>>**Entry Name: Benzyloxycarbonylpyroglutamic acid**
Synonym(s): 1-(Phenylmethyl) 5-oxo-1,2-pyrrolidinedicarboxylate, 9CI. Z-GlpOH



Molecular Formula: $C_{13}H_{13}NO_5$
Molecular Weight: 263.249
Accurate Mass: 263.079374
Percentage Composition: C 59.31%; H 4.98%; N 5.32%; O 30.39%

>>**Variant:** L-form

CAS Registry Number: 32159-21-0
Molecular Formula: $C_{13}H_{13}NO_5$
Molecular Weight: 263.249
Accurate Mass: 263.079374
Percentage Composition: C 59.31%; H 4.98%; N 5.32%; O 30.39%
Melting Point: Mp 134-135°
Optical Rotation: $[\alpha]_D$ –29.1 (c, 1.01 in MeOH)
Sigma: C5761

>>**Derivative:** Amide
Synonym(s): Z-GlpNH$_2$

Molecular Formula: $C_{13}H_{14}N_2O_4$
Molecular Weight: 262.265
Accurate Mass: 262.095358
Percentage Composition: C 59.54%; H 5.38%; N 10.68%; O 24.40%
Melting Point: Mp 157-158°
Optical Rotation: $[\alpha]_D$ +1.4 (c, 1.06 in EtOH)

>>**Derivative:** Hydrazide
Synonym(s): Z-GlpNHNH$_2$

Melting Point: Mp 188-190°
Optical Rotation: $[\alpha]_D$ –22.7 (c, 1.05 in 95% AcOH)

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

CAS Registry Number: 40356-52-3
Melting Point: Mp 140-141°
Optical Rotation: $[\alpha]_D$ –50.3 (c, 1 in THF)

>>**Derivative:** Succinimido ester
Synonym(s): Z-GlpOSu

CAS Registry Number: 40291-26-7
Melting Point: Mp 131-133°

>>**Derivative:** 2,4,5-Trichlorophenyl ester
Synonym(s): Z-GlpOTcp

CAS Registry Number: 5910-46-3
Melting Point: Mp 148-149°
Optical Rotation: $[\alpha]_D$ –38.9 (c, 1 in DMF)

References:

Gibian, H. *et al.*, *Annalen*, 1961, **640**, 145, *(synth, nitrophenyl, amide)*
Klieger, E. *et al.*, *Annalen*, 1961, **649**, 183, *(synth, butyloxycarbonylhydrazide)*
Celis, M.E. *et al.*, *FEBS Lett.*, 1972, **27**, 327, *(trichlorophenyl)*
Yanaihara, N. *et al.*, *J. Med. Chem.*, 1973, **16**, 373, *(succinimido)*