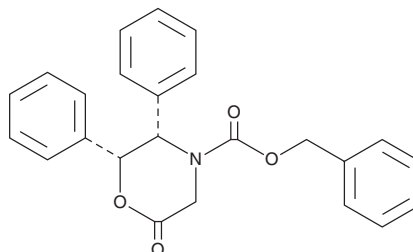


PRODUCT INFORMATION

(2R,3S)-N-Cbz-6-oxo-2,3-Diphenylmorpholine

Item No. 30497

CAS Registry No.: 100516-54-9
Formal Name: (2R,3S)-6-oxo-2,3-diphenyl-4-morpholinecarboxylic acid, phenylmethyl ester
Synonym: (2R,3S)-N-Carboxybenzyl-6-oxo-2,3-Diphenylmorpholine
MF: C₂₄H₂₁NO₄
FW: 387.4
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

(2R,3S)-N-Cbz-6-oxo-2,3-Diphenylmorpholine is supplied as a solid. A stock solution may be made by dissolving the (2R,3S)-N-Cbz-6-oxo-2,3-diphenylmorpholine in the solvent of choice, which should be purged with an inert gas. (2R,3S)-N-Cbz-6-oxo-2,3-Diphenylmorpholine is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of (2R,3S)-N-Cbz-6-oxo-2,3-diphenylmorpholine in these solvents is approximately 5 and 10 mg/ml, respectively.

(2R,3S)-N-Cbz-6-oxo-2,3-Diphenylmorpholine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, (2R,3S)-N-Cbz-6-oxo-2,3-diphenylmorpholine should first be dissolved in DMF and then diluted with the aqueous buffer of choice. (2R,3S)-N-Cbz-6-oxo-2,3-Diphenylmorpholine has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

(2R,3S)-N-Cbz-6-oxo-2,3-Diphenylmorpholine is a chiral building block.¹⁻³ It has been used in the stereoselective synthesis of fluorescent and non-fluorescent amino acids.

References

1. Reno, D.S., Lotz, B.T., and Miller, M.J. Asymmetric aldol reactions using boron enolates of chiral oxazinones, synthesis of L-allo-threonine. *Tetrahedron Lett.* **31**(6), 827-830 (1990).
2. Schuerman, M.A., Keverline, K.I., and Hiskey, R.G. Chiral synthesis of L-γ-carboxyglutamic acid (L-Gla). *Tetrahedron Lett.* **36**(6), 825-828 (1995).
3. Sui, G., Kele, P., Orbulescu, J., et al. Synthesis of a coumarin based fluorescent amino acid. *Lett. Pept. Sci.* **8**, 47-51 (2001).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM