Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

(R) -1,2,3,4-Tetrahydro-3-isoquinolinecarboxylic acid

Catalog No: tcsc2843

Available Sizes

Size: 100mg

Size: 500mg

Size: 5g

Size: 10g

Specifications

CAS No:
103733-65-9

Formula:
$C_{10}H_{11}NO_2$

Pathway:
Others

Target:
Others

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Alternative Names:
D-phenylalanine analogue

Observed Molecular Weight:
177.2

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Product Description

(R)-1,2,3,4-Tetrahydro-3-isoquinolinecarboxylic acid is a constrained Phe analogue which can fold into a beta-bend and a helical structure, and to adopt a preferred side-chain disposition in the peptide.

IC50 value:

Target:

Three Tic-containing (Tic = 1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid) model peptides were synthesized to assess the tendency of this constrained Phe analogue to fold into a beta-bend and a helical structure, and to adopt a preferred side-chain disposition. The results of the solution conformational analysis, performed by using Fourier transform infrared absorption and 1H nuclear magnetic resonance, indicate that in chloroform the -Aib-D-Tic-Aib-, -(Aib)2-D-Tic-(Aib)2-, and -L-Pro-D-Tic- sequences fold into intramolecularly H-bonded forms to a great extent. An X-ray diffraction analysis on p-BrBz-(Aib)2-DL-Tic-(Aib)2-OMe monohydrate and p-BrBz-L-Pro-D-Tic-NHMe allows us to conclude that, while the pentapeptide methylester forms an incipient (distorted) 3(10)-helix, the dipeptide methylamide adopts a type-II beta-bend conformation. In both cases, the D-Tic side-chain conformation is D, gauche(-). The implications for the use of the Tic residue in designing conformationally restricted analogues of bioactive peptides are briefly discussed.