

Product Data Sheet

Product Name: Cyclo(-D-Leu-D-Pro)

Cat. No.: GA21315

Chemical Properties

Cas. No. 274680-11-4

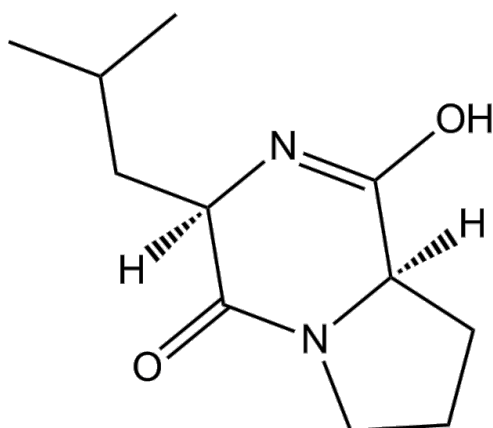
Formula $C_{11}H_{18}N_2O_2$ M.Wt 210.28

Solubility DMSO : 125 mg/mL (594.47 mM; Need ultrasonic) Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Background

Cyclo(-D-Leu-D-Pro) is a cyclic dipeptide from *Pseudonocardia endophytica* VUK-10, with antifungal

Caution: Product has not been fully validated for medical applications. For research use only.

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activities [1]. Cyclo(-D-Leu-D-Pro) has significantly inhibitory activity against conidial germination of *C. orbiculare* and can reduce lesion occurrence [2]. Cyclo(-D-Leu-D-Pro) significantly inhibits the growth of *A. parasiticus* and reduced the production of aflatoxins [3]. Cyclo(-D-Leu-D-Pro) has been widely used as an internal reference to optimize the parameters of high-resolution gas chromatography-mass spectrometry (HRGC/MS) detection methods for quantifying cyclic dipeptides in lactic acid bacteria cultures [4].

References:

- [1] Bailly C. Insights into the Bioactivities and Mechanism of Action of the Microbial Diketopiperazine Cyclic Dipeptide Cyclo (L-leucyl-L-prolyl)[J]. *Marine Drugs*, 2025, 23(10): 397.
- [2] Kim J, Kim J C, Sang M K. Identification of isomeric cyclo (leu-pro) produced by *Pseudomonas sesami* BC42 and its differential antifungal activities against *Colletotrichum orbiculare*[J]. *Frontiers in Microbiology*, 2023, 14: 1230345.
- [3] Yan P S, Song Y, Sakuno E, et al. Cyclo (L-leucyl-L-prolyl) produced by *Achromobacter xylosoxidans* inhibits aflatoxin production by *Aspergillus parasiticus*[J]. *Applied and environmental microbiology*, 2004, 70(12): 7466-7473.
- [4] Axel C, Zannini E, Arendt E K, et al. Quantification of cyclic dipeptides from cultures of *Lactobacillus brevis* R2Δ by HRGC/MS using stable isotope dilution assay[J]. *Analytical and bioanalytical chemistry*, 2014, 406(9): 2433-2444.

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