
Product Data Sheet

Product Name: Cyclo(L-Leu-L-Trp)

Cat. No.: GC18488

Chemical Properties

Cas. No. 15136-34-2

Chemical Name 3S-(1H-indol-3-ylmethyl)-6S-(2-methylpropyl)-2,5-piperazinedione

SMILES O=C([C@H](CC(C)C)N1)N[C@@H](CC2=CNC3=C2C=CC=C3)C1=OFormula C₁₇H₂₁N₃O₂ M.Wt 299.4

Solubility Methanol: Soluble 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(L-Leu-L-Trp) is a diketopiperazine metabolite originally isolated from *Penicillium*. It is active against various bacteria (MICs = 125-1000 ug/ml) and fungi (MICs = 8-64 ug/ml), and it inhibits the production rate of hydroxy radicals in an electron spin resonance (ESR) spectroscopy-based assay (IC₅₀ = 1.8 uM). Cyclo(L-Leu-L-Trp) is a bitter tastant that can rapidly permeate rat taste cell membranes *ex vivo* when used at a concentration of 1 mM. It also acts as a melatonin receptor agonist in *X. laevis* melanophores, inhibiting cAMP accumulation when used at a concentration of 20 uM, an effect that is blocked by the melatonin receptor antagonist luzindole .

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

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