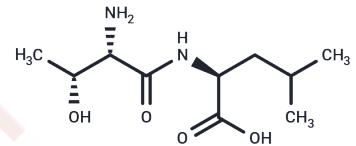


Thr-Leu

Chemical Properties

CAS No. :	50299-12-2
Formula:	C ₁₀ H ₂₀ N ₂ O ₄
Molecular Weight:	232.28
Storage:	Keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Thr-Leu is a dipeptide composed of threonine and leucine that can be hydrolyzed in the peritoneal cavity to release its constituent amino acids, thereby increasing dialysate osmotic pressure, and it is used in kinetic and formulation studies of amino acid-based peritoneal dialysis fluids.
Targets(IC50)	Others
In vitro	Method: Four-hour peritoneal dwell studies in rats were performed using Thr-Leu dipeptide solutions at 8 or 16 mmol/L and compared with a 1.1% amino acid solution, with kinetic modeling of hydrolysis and transport. Result: Dipeptide solutions showed slower peritoneal volume reduction than amino acid solution, with hydrolysis rates independent of concentration and diffusive transport rates exceeding hydrolysis rates[1].

Solubility Information

Solubility	H ₂ O: 100 mg/mL (430.51 mM), Sonication is recommended. DMSO: 100 mg/mL (430.51 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.3051 mL	21.5257 mL	43.0515 mL
5 mM	0.861 mL	4.3051 mL	8.6103 mL
10 mM	0.4305 mL	2.1526 mL	4.3051 mL
50 mM	0.0861 mL	0.4305 mL	0.861 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Weryński A, et al. Kinetic studies of dipeptide-based and amino acid-based peritoneal dialysis solutions. *Kidney international*, 2001, 59(1): 363-373.

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