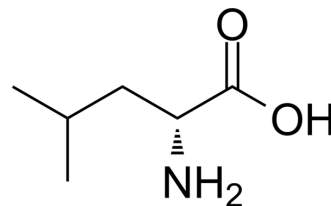


D-Leucine

Cat. No.:	HY-Y0378		
CAS No.:	328-38-1		
Molecular Formula:	C ₆ H ₁₃ NO ₂		
Molecular Weight:	131.17		
Target:	Endogenous Metabolite		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H₂O : 10 mg/mL (76.24 mM; ultrasonic and warming and heat to 60°C)
 DMSO : < 1 mg/mL (ultrasonic;warming;heat to 60°C) (insoluble or slightly soluble)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	7.6237 mL	38.1185 mL	76.2369 mL
	5 mM	1.5247 mL	7.6237 mL	15.2474 mL
	10 mM	0.7624 mL	3.8118 mL	7.6237 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: PBS
 Solubility: 2 mg/mL (15.25 mM); Clear solution; Need ultrasonic and warming and heat to 60°C

BIOLOGICAL ACTIVITY

Description

D-Leucine is a more potent anti-seizure agent than L-leucine. D-leucine potently terminates seizures even after the onset of seizure activity. D-leucine, but not L-leucine, reduces long-term potentiation but had no effect on basal synaptic transmission in vitro^[1].

IC₅₀ & Target

Human Endogenous Metabolite

In Vitro

In a screen of candidate neuronal receptors, D-leucine failed to compete for binding by cognate ligands, potentially suggesting a novel target. Even at low doses, D-leucine suppressed ongoing seizures at least as effectively as diazepam. These studies raise the possibility that D-leucine may represent a new class of anti-seizure agents, and that D-leucine may have a previously unknown function in eukaryotes^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Xiaoyu Cao, et al. Combination of PARP Inhibitor and Temozolomide to Suppress Chordoma Progression. J Mol Med (Berl). 2019 Aug;97(8):1183-1193

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

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