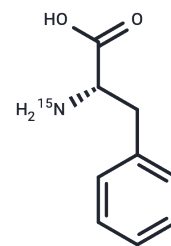


L-Phenylalanine-15N

Chemical Properties

CAS No. :	29700-34-3
Formula:	C ₉ H ₁₁ NO ₂
Molecular Weight:	166.18
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	L-Phenylalanine-15N is the 15N-labeled L-Phenylalanine. L-Phenylalanine (T3377) is an essential amino acid isolated from Escherichia coli . L-Phenylalanine (T3377) is a α 2 δ subunit of voltage-dependent Ca ⁺ channels antagonist with a K _i of 980 nM. L-phenylalanine is a competitive antagonist for the glycine- and glutamate-binding sites of N-methyl-D-aspartate receptors (NMDARs) (K _B of 573 μ M) and non-NMDARs , respectively. L-Phenylalanine (T3377) is widely used in the production of food flavors and pharmaceuticals.
Targets(IC50)	Calcium Channel,Endogenous Metabolite,iGluR
In vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, primarily as tracers for quantitation during the drug development process. Human studies with deuterium-labeled drugs suggest these compounds may offer advantages over their nondeuterated counterparts due to potential effects on pharmacokinetic and metabolic profiles. Deuteration has gained attention in this context.

Solubility Information

Solubility	DMSO: < 1.66 mg/mL (10 mM, insoluble or slightly soluble) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	6.0176 mL	30.0879 mL	60.1757 mL
5 mM	1.2035 mL	6.0176 mL	12.0351 mL
10 mM	0.6018 mL	3.0088 mL	6.0176 mL
50 mM	0.1204 mL	0.6018 mL	1.2035 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

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Glushakov AV, et al. Specific inhibition of N-methyl-D-aspartate receptor function in rat hippocampal neurons by L-phenylalanine at concentrations observed during phenylketonuria. *Mol Psychiatry.* 2002;7(4):359-67.

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