

D-Glucose-13C6

Chemical Properties

CAS No. : 110187-42-3

Formula: C₆H₁₂O₆

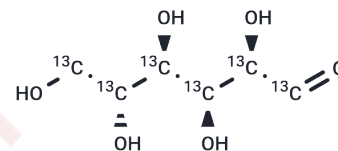
Molecular Weight: 186.11

Storage:

Keep away from moisture, Keep away from direct sunlight

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	D-Glucose-13C6 is an isotopic marker of D-Glucose (TMSM-0910), which can be used as a metabolic tracer for the study of metabolism-related diseases and metabolic processes of some substances in the body.
Targets(IC50)	Endogenous Metabolite
In vivo	D-Glucose-13C6, when added to 25 grams of carrot medium, either at 0.1 grams for embryos or in combination with 0.1 grams and 1 gram of 99.5% sucrose added to 15 mL of water for adults, leads to a slight reduction in the hatching rate, larval development speed, the number of emerged adults, mating period, and mating frequency in the Mediterranean fruit fly [3].

Solubility Information

Solubility	H ₂ O: 20 mg/mL (107.46 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	5.3732 mL	26.8658 mL	53.7317 mL
5 mM	1.0746 mL	5.3732 mL	10.7463 mL
10 mM	0.5373 mL	2.6866 mL	5.3732 mL
50 mM	0.1075 mL	0.5373 mL	1.0746 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

Zhang H, et al. A convenient LC-MS method for assessment of glucose kinetics in vivo with D-[13C6]glucose as a tracer. Clin Chem. 2009 Mar;55(3):527-32.

Malz F, et al. Synthesis of methyl 4'-O-methyl-beta-D-cellobioside-13C12 from D-glucose-13C6. Part 2: solid-state NMR studies. Carbohydr Res. 2007 Jan 15;342(1):65-70.

Al-Khshemawee H, et al. Stable isotope labelling of Ceratitis capitata. Plant Protect. Sci.2019;55(1):54-60.

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