Data Sheet (Cat.No.T35683)

TargetMol

2-deoxy-D-Glucose-13C

Chemical Properties

CAS No. : 201612-55-7

Formula: C5C(13)H12O5

Molecular Weight: 165.15

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	2-deoxy-D-Glucose-13C is intended for use as an internal standard for the quantification of 2-deoxy-D-glucose by GC- or LC-MS. 2-deoxy-D-Glucose (T6742) is a glucose antimetabolite and an inhibitor of glycolysis. It inhibits hexokinase, the enzyme that converts glucose to glucose-6-phosphate, as well as phosphoglucose isomerase, the enzyme that converts glucose-6-phosphate to fructose-6-phosphate.
Targets(IC50)	Apoptosis,Others,Hexokinase,HSV
In vivo	In vivo, 2-deoxy-D-glucose (500 mg/kg) reduces tumor growth in 143B osteosarcoma and MV522 non-small cell lung cancer mouse xenograft models when used alone or in combination with doxorubicin or paclitaxel .6

Solubility Information

Solubility	H2O: Soluble DMSO: Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	6.0551 mL	30.2755 mL	60.551 mL
5 mM	1.211 mL	6.0551 mL	12.1102 mL
10 mM	0.6055 mL	3.0276 mL	6.0551 mL
50 mM	0.1211 mL	0.6055 mL	1.211 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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Liu, H., Savaraj, N., Priebe, W., et al.Hypoxia increases tumor cell sensitivity to glycolytic inhibitors: A strategy for solid tumor therapy (Model C)Biochem. Pharmacol.64(12)1745-1751(2002)

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Maschek, G., Savaraj, N., Priebe, W., et al.2-deoxy-D-glucose increases the efficacy of adriamycin and paclitaxel in human osteosarcoma and non-small cell lung cancers in vivoCancer Res.64(1)31-34(2004)