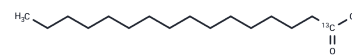


## Palmitic acid-1-13C

## Chemical Properties

CAS No. :	57677-53-9
Formula:	C16H32O2
Molecular Weight:	257.422
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	Palmitic acid-1-13C is intended for use as an internal standard for the quantification of palmitic acid by GC- or LC-MS. Palmitic acid (T2908) is a 16-carbon saturated fatty acid. It comprises approximately 25% of human total plasma lipids. <sup>1</sup> It increases protein levels of COX-2 in RAW 264.7 cells when used at a concentration of 75 μM. <sup>2</sup> Palmitic acid (T2908) is involved in the acylation of proteins to anchor membrane-bound proteins to the lipid bilayer. <sup>2,3,4,5,6</sup>
Targets(IC50)	HSP

## Solubility Information

Solubility	Ethanol: 30 mg/mL (116.54 mM),Sonication is recommended. DMF: 20 mg/mL (77.69 mM),Sonication is recommended. DMSO: 20 mg/mL (77.69 mM),Sonication is recommended. Ethanol:PBS (pH 7.2) (1:2): 0.25 mg/mL (0.97 mM),Sonication is recommended. ( < 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2 mg/mL (7.77 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.8847 mL	19.4235 mL	38.847 mL
5 mM	0.7769 mL	3.8847 mL	7.7694 mL
10 mM	0.3885 mL	1.9424 mL	3.8847 mL
50 mM	0.0777 mL	0.3885 mL	0.7769 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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- Miggin, S.M., Lawler, O.A., and Kinsella, B.T. Palmitoylation of the human prostacyclin receptor. Functional implications of palmitoylation and isoprenylation. *J. Biol. Chem.* 278(9), 6947-6958 (2003).

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