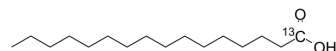


## Palmitic acid-1-<sup>13</sup>C

<b>Cat. No.:</b>	HY-N0830S3	
<b>CAS No.:</b>	57677-53-9	
<b>Molecular Formula:</b>	C <sub>15</sub> <sup>13</sup> CH <sub>32</sub> O <sub>2</sub>	
<b>Molecular Weight:</b>	257.42	
<b>Target:</b>	HSP	
<b>Pathway:</b>	Cell Cycle/DNA Damage; Metabolic Enzyme/Protease	
<b>Storage:</b>	Powder	-20°C 3 years
	In solvent	-80°C 6 months
		-20°C 1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 66.67 mg/mL (258.99 mM; Need ultrasonic)  
 DMSO : 66.67 mg/mL (258.99 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.8847 mL	19.4235 mL	38.8470 mL
	5 mM	0.7769 mL	3.8847 mL	7.7694 mL
	10 mM	0.3885 mL	1.9424 mL	3.8847 mL

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

#### In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil  
 Solubility: ≥ 2.5 mg/mL (9.71 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Palmitic acid-1-<sup>13</sup>C is the <sup>13</sup>C-labeled Palmitic acid. Palmitic acid is a long-chain saturated fatty acid commonly found in both animals and plants. Palmitic acid can induce the expression of glucose-regulated protein 78 (GRP78) and CCAAT/enhancer binding protein homologous protein (CHOP) in in mouse granulosa cells[1][2].

### REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.

[2]. Harada H, et al. Antitumor activity of palmitic acid found as a selective cytotoxic substance in a marine red alga. *Anticancer Res.* 2002 Sep-Oct;22(5):2587-90.

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

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