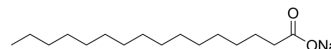


## Palmitic acid sodium

<b>Cat. No.:</b>	HY-N0830B
<b>CAS No.:</b>	408-35-5
<b>Molecular Formula:</b>	C <sub>16</sub> H <sub>31</sub> NaO <sub>2</sub>
<b>Molecular Weight:</b>	278.41
<b>Target:</b>	Biochemical Assay Reagents; HSP; Endogenous Metabolite
<b>Pathway:</b>	Others; Cell Cycle/DNA Damage; Metabolic Enzyme/Protease
<b>Storage:</b>	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 8.33 mg/mL (29.92 mM); ultrasonic and warming and adjust pH to 4 with 1M HCl and heat to 60°C					
	H <sub>2</sub> O : < 0.1 mg/mL (ultrasonic;warming;heat to 44°C) (insoluble)					
	<b>Preparing Stock Solutions</b>	<b>Solvent</b>	<b>Mass</b>	<b>1 mg</b>	<b>5 mg</b>	<b>10 mg</b>
		<b>Concentration</b>				
		<b>1 mM</b>		3.5918 mL	17.9591 mL	35.9182 mL
<b>5 mM</b>			0.7184 mL	3.5918 mL	7.1837 mL	
	<b>10 mM</b>		0.3592 mL	1.7959 mL	3.5918 mL	
Please refer to the solubility information to select the appropriate solvent.						
<b>In Vivo</b>	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 1.11 mg/mL (3.99 mM); Clear solution					

### BIOLOGICAL ACTIVITY

<b>Description</b>	Palmitic acid sodium is a long-chain saturated fatty acid commonly found in both animals and plants. Palmitic acid sodium can induce the expression of glucose-regulated protein 78 (GRP78) and CCAAT/enhancer binding protein homologous protein (CHOP) in mouse granulosa cells. Palmitic acid sodium is used to establish a cell steatosis model <sup>[1][2]</sup> .
<b>In Vitro</b>	Palmitic acid sodium (0.1, 0.25 or 0.5 mM; 12-72 h) increases the mRNA levels of Notch1, 2 and 4 in LX2, Huh7 and MIHA hepatic cell lines. Palmitic acid sodium is dissolved in DMEM containing 1% BSA and filtered through a 0.22-µm filter, then added to the cells <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### CUSTOMER VALIDATION

- Cell Discov. 2023 Mar 7;9(1):26.
- Bioact Mater. 2024 Mar, 33, 85-99.
- Adv Sci (Weinh). 2023 Oct;10(28):e2302130.
- Gut Microbes. 2022, 14(1): 2139978.
- Cardiovasc Diabetol. 2023 May 6;22(1):107.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

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[1]. 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.

[2]. Wen-Jin Ding, et al. Expression of Notch family is altered in non-alcoholic fatty liver disease. *Mol Med Rep.* 2020 Sep;22(3):1702-1708.

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

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