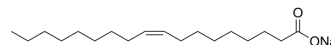


Sodium oleate

Cat. No.:	HY-N1446B
CAS No.:	143-19-1
Molecular Formula:	C ₁₈ H ₃₃ NaO ₂
Molecular Weight:	304.44
Target:	Na ⁺ /K ⁺ ATPase; Apoptosis
Pathway:	Membrane Transporter/Ion Channel; Apoptosis
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro	H ₂ O : 25 mg/mL (82.12 mM; Need ultrasonic)																									
	DMSO : 1 mg/mL (3.28 mM; ultrasonic and warming and heat to 60°C)																									
	<table border="1"> <thead> <tr> <th rowspan="2">Solvent</th> <th rowspan="2">Mass</th> <th colspan="3">Concentration</th> </tr> <tr> <th>1 mg</th> <th>5 mg</th> <th>10 mg</th> </tr> </thead> <tbody> <tr> <td rowspan="4">Preparing Stock Solutions</td> <td>1 mM</td> <td>3.2847 mL</td> <td>16.4236 mL</td> <td>32.8472 mL</td> </tr> <tr> <td>5 mM</td> <td>0.6569 mL</td> <td>3.2847 mL</td> <td>6.5694 mL</td> </tr> <tr> <td>10 mM</td> <td>0.3285 mL</td> <td>1.6424 mL</td> <td>3.2847 mL</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Solvent	Mass	Concentration			1 mg	5 mg	10 mg	Preparing Stock Solutions	1 mM	3.2847 mL	16.4236 mL	32.8472 mL	5 mM	0.6569 mL	3.2847 mL	6.5694 mL	10 mM	0.3285 mL	1.6424 mL	3.2847 mL				
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Please refer to the solubility information to select the appropriate solvent.																										
In Vivo	1. Add each solvent one by one: PBS Solubility: 9.09 mg/mL (29.86 mM); Clear solution; Need ultrasonic and warming and heat to 60°C																									

BIOLOGICAL ACTIVITY

Description	Sodium oleate (Oleic acid sodium) is an abundant monounsaturated fatty acid sodium ^[1] . Sodium oleate is a Na ⁺ /K ⁺ ATPase activator ^[2] .
IC₅₀ & Target	Na ⁺ /K ⁺ ATPase ^[2]
In Vitro	<p>Oleic acid is the most common monounsaturated fatty acids (FA) in human adipocytes and other tissues. Oleic acid prompts cell proliferation and migration in high metastatic cancer cells via enhancing β-oxidation mediated by AMPK activation. Oleic acid inhibits cancer cell growth and survival in low metastatic carcinoma cells, such as gastric carcinoma SGC7901 and breast carcinoma MCF-7 cell lines^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

CUSTOMER VALIDATION

- J Extracell Vesicles. 2024 Jan;13(1):e12401.
- Adv Sci (Weinh). 2023 Oct;10(28):e2302130.
- Redox Biol. 15 October 2021, 102168.
- Redox Biol. 2021 Jan;38:101807.
- J Exp Clin Cancer Res. 2019 Jul 10;38(1):300.

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REFERENCES

- [1]. Li S, et al. High metastatic gastric and breast cancer cells consume oleic acid in an AMPK dependent manner. PLoS One. 2014 May 13;9(5):e97330.
- [2]. Jack-Hays MG, et al. Activation of Na⁺/K⁺-ATPase by fatty acids, acylglycerols, and related amphiphiles: structure-activity relationship. Biochim Biophys Acta. 1996 Feb 21;1279(1):43-8.

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

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