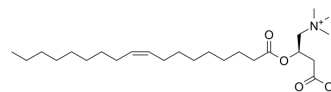


Oleoylcarnitine

Cat. No.:	HY-113261		
CAS No.:	38677-66-6		
Molecular Formula:	C ₂₅ H ₄₇ NO ₄		
Molecular Weight:	425.64		
Target:	Endogenous Metabolite		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (234.94 mM; ultrasonic and warming and heat to 60°C)

Solvent	Mass	Concentration		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.3494 mL	11.7470 mL	23.4940 mL
	5 mM	0.4699 mL	2.3494 mL	4.6988 mL
	10 mM	0.2349 mL	1.1747 mL	2.3494 mL

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

BIOLOGICAL ACTIVITY

Description

Oleoylcarnitine, the metabolite which accumulates through suppression of fatty acid β -oxidation, can enhance hepatocarcinogenesis via STAT3 activation^[1].

IC₅₀ & Target

Human Endogenous Metabolite

In Vitro

Oleoylcarnitine (AC18:1) (5, 25, 50 μ M; 24, 48 hours) concentration significantly increases in the Dih10 cells with stable CPT2 knock down^[1].

Oleoylcarnitine (5 μ M, 24 hours) contributes directly to hepatocarcinogenesis by conferring stem cell properties to cancer cells through STAT3 activation^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay^[1]

Cell Line: Dih 10 cells, HCC cells

Concentration: 5, 25, 50 μ M

	Incubation Time:	24, 48 hours
	Result:	Enhanced the self-renewal of HCC cells through STAT3 activation. Contributed directly to hepatocarcinogenesis.
In Vivo	Oleoylcarnitine (AC18:1) accumulates markedly in obesity-driven HCC tissues of mice ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	MUP-uPA and PIK3CA Tg mice ^[1] .
	Dosage:	
	Administration:	High-fat diet (HFD) for mice
	Result:	Accumulated in HCC tissues and in the serum of HFD-fed mice.

REFERENCES

[1]. Fujiwara N, et al. CPT2 downregulation adapts HCC to lipid-rich environment and promotes carcinogenesis via acylcarnitine accumulation in obesity. Gut. 2018 Aug;67(8):1493-1504.

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

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