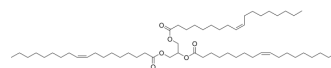


Triolein

Cat. No.:	HY-N1981
CAS No.:	122-32-7
Molecular Formula:	C ₅₇ H ₁₀₄ O ₆
Molecular Weight:	885.43
Target:	MMP; Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	-20°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (112.94 mM; Need ultrasonic)																	
	<table border="1"> <thead> <tr> <th rowspan="2">Solvent Concentration</th> <th rowspan="2">Mass</th> <th>1 mg</th> <th>5 mg</th> <th>10 mg</th> </tr> </thead> <tbody> <tr> <td>1 mM</td> <td>1.1294 mL</td> <td>5.6470 mL</td> <td>11.2939 mL</td> </tr> <tr> <td>5 mM</td> <td>0.2259 mL</td> <td>1.1294 mL</td> <td>2.2588 mL</td> </tr> <tr> <td>10 mM</td> <td>0.1129 mL</td> <td>0.5647 mL</td> <td>1.1294 mL</td> </tr> </tbody> </table>	Solvent Concentration	Mass	1 mg	5 mg	10 mg	1 mM	1.1294 mL	5.6470 mL	11.2939 mL	5 mM	0.2259 mL	1.1294 mL	2.2588 mL	10 mM	0.1129 mL	0.5647 mL	1.1294 mL
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	Please refer to the solubility information to select the appropriate solvent.																	
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (2.35 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (2.35 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (2.35 mM); Clear solution 																	

BIOLOGICAL ACTIVITY

Description	Triolein is a symmetric triacylglycerol that reduces upregulation of MMP-1 and has strong antioxidant and anti-inflammatory activities ^{[1][2]} .
IC₅₀ & Target	Human Endogenous Metabolite
In Vitro	Triolein (20 μM, 48 h) decreases the upregulation of MMP-1 in dermal fibroblasts produced by ROS ^[1] . Triolein (10 μM, 24 h) can improve the oxidative stress induced by oxidative low-density lipoprotein in endothelial cells ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

RT-PCR^[1]

Cell Line:	Tel α E6E7
Concentration:	20 μ M
Incubation Time:	48 h
Result:	Reduced the IL-6 expression and ROS generation.

REFERENCES

[1]. Luo T, et al. Triolein and trilinolein ameliorate oxidized low-density lipoprotein-induced oxidative stress in endothelial cells. *Lipids*. 2014 May;49(5):495-504.

[2]. Leirós GJ, et al. Triolein reduces MMP-1 upregulation in dermal fibroblasts generated by ROS production in UVB-irradiated keratinocytes. *J Dermatol Sci*. 2017 Feb;85(2):124-130.

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

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