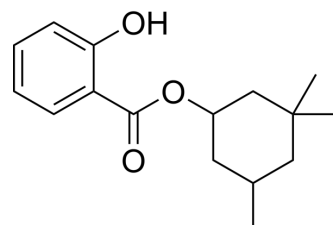


Homosalate

Cat. No.:	HY-B0928		
CAS No.:	118-56-9		
Molecular Formula:	C ₁₆ H ₂₂ O ₃		
Molecular Weight:	262.34		
Target:	Biochemical Assay Reagents		
Pathway:	Others		
Storage:	Pure form	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (381.18 mM; Need ultrasonic)
 H₂O : < 0.1 mg/mL (insoluble)

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	3.8118 mL	19.0592 mL	38.1185 mL
	5 mM	0.7624 mL	3.8118 mL	7.6237 mL
	10 mM	0.3812 mL	1.9059 mL	3.8118 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 2.5 mg/mL (9.53 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: 2.5 mg/mL (9.53 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.5 mg/mL (9.53 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Homosalate (Homomenthyl salicylate) is an organic compound used as a sunscreen to filter UV rays and protect the skin from sun damage. Homosalate has anti-inflammatory activity^{[1][2][3]}.

In Vitro

Homosalate (250-2000 μM, 24 h) has cytotoxic and genotoxic effects on MCF-7 cells^[1].
 Homosalate (10 μM) can promote the release of tumor-derived extracellular vesicles and has a protective effect against loss of anchoring^[2].

Homosalate (20-100 μM , 2 h) significantly inhibits HTR8/Svneo cell invasion through PI3K/AKT and MAPK pathways^[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay^[1]

Cell Line:	MCF-7
Concentration:	250, 500, 750, 1000, 1500, 2000 μM
Incubation Time:	24 h
Result:	Induced micronucleus formation at 750 and 1000 μM . Decreased cell viability up to 57% at 2000 μM .

Apoptosis Analysis^[3]

Cell Line:	HTR8/SVneo
Concentration:	0, 20, 50 100 μM
Incubation Time:	2 h
Result:	Reduced proliferation and increased apoptotic cell ratio.

Western Blot Analysis^[3]

Cell Line:	HTR8/SVneo
Concentration:	0, 20, 50 100 μM
Incubation Time:	2 h
Result:	Increased the phosphorylation of ERK1/2 (p-ERK1/2) and P38 (p-P38).

CUSTOMER VALIDATION

- Environ Pollut. 2018 Sep 21;243(Pt B):1263-1273.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. Yazar S, et al. Assessment of the cytotoxicity and genotoxicity of homosalate in MCF-7. J Cosmet Dermatol. 2020 Jan;19(1):246-252.
- [2]. Hong YP, et al. Effects of Castanospermine on Inflammatory Response in a Rat Model of Experimental Severe Acute Pancreatitis. Arch Med Res. 2016 Aug;47(6):436-445.
- [3]. Yang C, et al. Homosalate aggravates the invasion of human trophoblast cells as well as regulates intracellular signaling pathways including PI3K/AKT and MAPK pathways. Environ Pollut. 2018 Dec;243(Pt B):1263-1273.

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

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