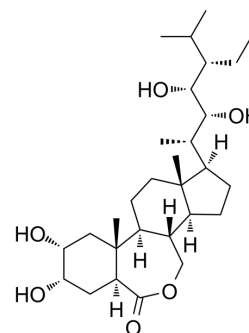


28-Homobrassinolide

Cat. No.:	HY-N9435		
CAS No.:	82373-95-3		
Molecular Formula:	C ₂₉ H ₅₀ O ₆		
Molecular Weight:	494.7		
Target:	Others		
Pathway:	Others		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 20 mg/mL (40.43 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	2.0214 mL	10.1071 mL	20.2143 mL
5 mM	0.4043 mL	2.0214 mL	4.0429 mL
10 mM	0.2021 mL	1.0107 mL	2.0214 mL

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

BIOLOGICAL ACTIVITY

Description

28-Homobrassinolide is a phytosteroid. 28-Homobrassinolide can be used for the research of cholesterol and glucose homeostasis^[1].

In Vitro

28-Homobrassinolide (5-20 μM) indicates a 2-fold increase in glucose utilization and ABCA1 and SREBP2 protein expression in HepG2 cells^[1].

28-Homobrassinolide decreases tissue glucose and cholesterol levels, increases cholesterol level and tissue hexokinase activity^[1].

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

Cell Cytotoxicity Assay^[1]

Cell Line:	HepG2 cells
Concentration:	1 μM, 5 μM, 10 μM, 20 μM, 30 μM, 40 μM, and 80 μM
Incubation Time:	24 h

	<table border="1"> <tr> <td>Result:</td> <td>The IC₅₀ value of 40.57µM obtained by the MTT assay.</td> </tr> <tr> <td colspan="2">Western Blot Analysis^[1]</td> </tr> <tr> <td>Cell Line:</td> <td>HepG2 cells</td> </tr> <tr> <td>Concentration:</td> <td>5, 10, and 20 µM</td> </tr> <tr> <td>Incubation Time:</td> <td>12 h</td> </tr> <tr> <td>Result:</td> <td>Exhibited an increase in both ABCA1 and SREBP2 markers.</td> </tr> </table>	Result:	The IC ₅₀ value of 40.57µM obtained by the MTT assay.	Western Blot Analysis ^[1]		Cell Line:	HepG2 cells	Concentration:	5, 10, and 20 µM	Incubation Time:	12 h	Result:	Exhibited an increase in both ABCA1 and SREBP2 markers.
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Cell Line:	HepG2 cells												
Concentration:	5, 10, and 20 µM												
Incubation Time:	12 h												
Result:	Exhibited an increase in both ABCA1 and SREBP2 markers.												
In Vivo	<p>28-HB (1-20 µg/day; for 6 weeks) exhibits a marked decrease in aortic fat deposit and serum marker levels in high-fat diet-fed C57BL/6 mice^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>High-fat diet-fed C57BL/6 mice^[1]</td> </tr> <tr> <td>Dosage:</td> <td>1-20 µg/day</td> </tr> <tr> <td>Administration:</td> <td>For 6 weeks</td> </tr> <tr> <td>Result:</td> <td>Observed a significant decrease in lipid deposition.</td> </tr> </table>	Animal Model:	High-fat diet-fed C57BL/6 mice ^[1]	Dosage:	1-20 µg/day	Administration:	For 6 weeks	Result:	Observed a significant decrease in lipid deposition.				
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REFERENCES

[1]. Victor Mukherjee, et al. Phytosteroid 28-homobrassinolide targets cholesterol and glucose homeostasis implicating ABCA1 and SREBP role in regulation. Steroids. 2021 Jan;165:108756.

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

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