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Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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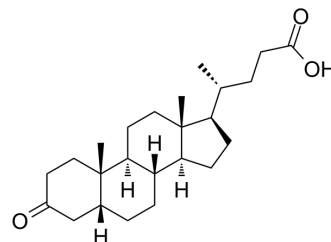
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3-Oxo-5β-cholanoic acid

Cat. No.: HY-125801
CAS No.: 1553-56-6
Molecular Formula: C₂₄H₃₈O₃
Molecular Weight: 374.56
Target: ROR
Pathway: Metabolic Enzyme/Protease; Vitamin D Related/Nuclear Receptor
Storage: -20°C, stored under nitrogen
 * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (266.98 mM; Need ultrasonic)
 H₂O : < 0.1 mg/mL (ultrasonic;warming;heat to 60°C) (insoluble)

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		2.6698 mL	13.3490 mL	26.6980 mL
	5 mM		0.5340 mL	2.6698 mL	5.3396 mL
	10 mM		0.2670 mL	1.3349 mL	2.6698 mL

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

In Vivo

1. Add each solvent one by one: 0.5% CMC-Na/saline water
Solubility: 3.33 mg/mL (8.89 mM); Suspended solution; Need ultrasonic and warming and heat to 60°C
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (6.67 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (6.67 mM); Clear solution
4. Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (6.67 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

3-Oxo-5β-cholanoic acid (Dehydrolithocholic acid), a bile acid metabolite, inhibits the differentiation of TH17 cells by directly binding to the key transcription factor RORγt (K_d=1.13 μM)^[1].

In Vitro

Treatment with 3-Oxo-5β-cholanoic acid significantly reduced the activity of the RORγt reporter. These data suggest that 3-Oxo-5β-cholanoic acid probably inhibits TH17 cell differentiation by physically interacting with RORγt, and inhibiting its transcriptional activity^[1].

	MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
In Vivo	3-Oxo-5 β -cholanoic acid (Dehydrolithocholic acid) (0.3% (w/w); p.o.; for 1 week) significantly reduces the percentage of ileal TH17 cells ^[1] .	
	MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	B6 Jax mice (with a faecal slurry containing SFB) ^[1]
	Dosage:	0.3% (w/w)
	Administration:	Gavaged; for 1 week
	Result:	Significantly reduced the percentage of ileal TH17 cells.

REFERENCES

[1]. Hang S, et al. Bile acid metabolites control TH17 and Treg cell differentiation. Nature. 2019 Dec;576(7785):143-148.

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

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