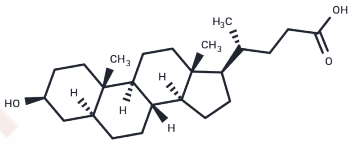
Data Sheet (Cat.No.T36522)

TargetMol

Isoallolithocholic acid

Chemical Properties



CAS No. : 2276-93-9

Formula: C24H40O3

Molecular Weight: 376.57

Storage: Keep away from moisture
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Isoallolithocholic acid (3β-Hydroxy-5α-cholanic acid) is a bile acid metabolite and T-cell modulator with anti-inflammatory activity, associated with human immune homeostasis.
Targets(IC50)	Others
In vitro	Isoallolithocholic acid (3β-Hydroxy-5α-cholanic acid) (20 μM) reduces Th17 cell differentiation by approximately 50% without affecting RORγt expression. It does not impact Th1 or Th2 cell differentiation, and its regulatory effect on Tregs is cell-type specific. Isoallolithocholic acid-dependent enhancement of FoxP3 expression requires mitoROS.[1]
In vivo	Isoallolithocholic acid (0.03%; in the diet; 7 days; Segmented filamentous bacteria (SFB) -colonized Jax-B6 mice) was insufficient to enhance Treg percentages both at steady state and following anti-CD3 treatment alone. Significantly enhanced the Treg population in mice treated with anti-CD3 compared to the control diet in combination with 0.3% (w/w) 3-oxo-lithocholic acid (3-oxoLCA). Reduced the number of CD45.1+ T effector cells. Enhancing Treg cells in B6 mice.[1]

Solubility Information

Solubility	DMSO: 27.22 mg/mL (72.28 mM),Sonication is recommended. DMF: 1 mg/mL (2.66 mM),Sonication is recommended. DMF:PBS (pH 7.2) (1:3): 0.25 mg/mL (0.66 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6555 mL	13.2777 mL	26.5555 mL
5 mM	0.5311 mL	2.6555 mL	5.3111 mL
10 mM	0.2656 mL	1.3278 mL	2.6555 mL
50 mM	0.0531 mL	0.2656 mL	0.5311 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Bukiya, A.N., McMillan, J., Parrill, A.L., et al.Structural determinants of monohydroxylated bile acids to activate β1 subunit-containing BK channelsJ. Lipid Res.49(11)2441-2451(2008)

Vonk, R.J., Tuchweber, B., MassÉ, D., et al.Intrahepatic cholestasis induced by allo monohydroxy bile acid in ratsGastroenterology80(2)242-249(1981)

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