# Data Sheet (Cat.No.T36522)



## Isoallolithocholic acid

#### **Chemical Properties**

CAS No.: 2276-93-9

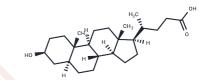
Formula: C24H40O3

Molecular Weight: 376.57

Appearance: no data available

Storage: store at low temperature

Powder: -20°C for 3 years | In solvent: -80°C for 1 year



#### **Biological Description**

Description	Isoallolithocholic acid $(3\beta$ -Hydroxy- $5\alpha$ -cholanic acid) is a T-cell modulator, a bile acid metabolite with anti-inflammatory activity that is 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.[1] Isoallolithocholic acid does not affect the differentiation of T cells into Th1 or Th2 cells, and the regulatory effect of Isoallolithocholic acid on Tregs is cell-type specific.[1] 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	DMF: 1 mg/mL		
	DMF:PBS (pH 7.2) (1:3): 0.25 mg/mL		
	(< 1 mg/ml refers to the product slightly soluble or insoluble)		

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#### **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.

#### Reference

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

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