



# SZABO SCANDIC

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Diagnostik & molekulare Diagnostik



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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
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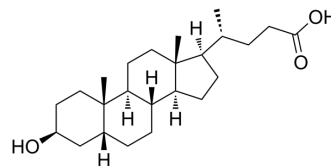
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## Isolithocholic acid

<b>Cat. No.:</b>	HY-B0172B		
<b>CAS No.:</b>	1534-35-6		
<b>Molecular Formula:</b>	C <sub>24</sub> H <sub>40</sub> O <sub>3</sub>		
<b>Molecular Weight:</b>	376.57		
<b>Target:</b>	Endogenous Metabolite		
<b>Pathway:</b>	Metabolic Enzyme/Protease		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 28.57 mg/mL (75.87 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	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	
Please refer to the solubility information to select the appropriate solvent.					
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 2.86 mg/mL (7.59 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.86 mg/mL (7.59 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 2.86 mg/mL (7.59 mM); Clear solution</li> </ol>				

### BIOLOGICAL ACTIVITY

<b>Description</b>	Isolithocholic acid (β-Lithocholic acid) is an isomer of Lithocholic acid. Isolithocholic acid, a bile acid, is formed by microbial metabolism of Lithocholic acid or Lithocholic acid 3α-sulfate <sup>[1][2]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	Microbial Metabolite
<b>In Vitro</b>	Isolithocholic acid at 0.01 % does not inhibit spore germination and outgrowth of CF5 and M120, but it significantly inhibits at the higher concentration (0.1 %). Isolithocholic acid (0.00003 %) prevents growth of CD196, M68, CF5, 630, and BI9 and

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significant decreases strains CF5, BI9, M120, and 630 in toxin activity. Isolithocholic acid (0.0003 %) makes that all strains displays a significant decrease in toxin activity, except for R20291 and M120<sup>[3]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

**In Vivo**

The levels of fecal Isolithocholic acid shows obvious decreases from day 28 onward in the high fat diet (HFD) group compared with rats fed a normal diet<sup>[4]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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**REFERENCES**

- [1]. Batta AK, et al. Transformation of bile acids into iso-bile acids by Clostridium perfringens: possible transport of 3 beta-hydrogen via the coenzyme. Hepatology. 1985;5(6):1126-1131.
- [2]. Borriello SP, et al. The metabolism of lithocholic acid and lithocholic acid-3-alpha-sulfate by human fecal bacteria. Lipids. 1982;17(7):477-482.
- [3]. Thanissery R, et al. Inhibition of spore germination, growth, and toxin activity of clinically relevant C. difficile strains by gut microbiota derived secondary bile acids. Anaerobe. 2017;45:86-100.
- [4]. Lin H, et al. Alterations of Bile Acids and Gut Microbiota in Obesity Induced by High Fat Diet in Rat Model. J Agric Food Chem. 2019;67(13):3624-3632.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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