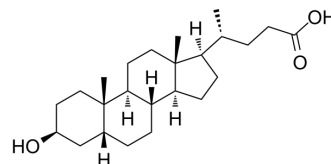


Isolithocholic acid

Cat. No.:	HY-B0172B
CAS No.:	1534-35-6
Molecular Formula:	C ₂₄ H ₄₀ O ₃
Molecular Weight:	376.57
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	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 ^{[1][2]} .
IC₅₀ & Target	Microbial Metabolite
In Vitro	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 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 ^[3] . 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 ^[4] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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.

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

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