# Cholic acid sodium hydrate

**Cat. No.:** HY-N0324B

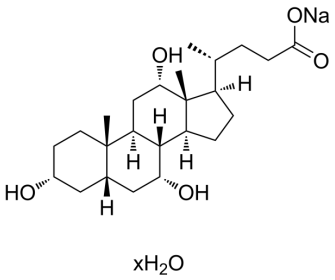
**CAS No.:** 206986-87-0

**Molecular Formula:** $C_{24}H_{40}O_5.xH_2O.Na$

**Target:** Endogenous Metabolite

**Pathway:** Metabolic Enzyme/Protease

**Storage:** Please store the product under the recommended conditions in the Certificate of Analysis.




$xH_2O$

## BIOLOGICAL ACTIVITY

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| **Description** | Cholic acid sodium hydrate is a major primary bile acid produced in the liver and usually conjugated with glycine or taurine. Cholic acid sodium hydrate facilitates fat absorption and cholesterol excretion. Cholic acid sodium hydrate is orally active[1] [2]. |
| **$IC_{50}$ & Target** | Human Endogenous Metabolite |
| **In Vitro** | Cholic acid (1 mg/mL, 30 min) competitively binds $Na^+$/taurocholate cotransporting polypeptide (NTCP) on HepG2 cells and significantly inhibits the uptake of Cholic acid (CA)-nanoliposomes (LPs)-Doxorubicin (DOX)-HCl, which indicates that CA-LPs-DOX-HCl are also uptaken via NTCP-mediated endocytosis pathway[1].<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only. |
| **In Vivo** | Cholic acid (1% (w/w) Cholic acid-supplemented diet; p.o.; 14 days) decreases SHP (small heterodimer partner) protein expression, potentially via the upregulation of miR142-3p. Cholic acid increases CYP2D6 expression and activity[2].<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

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| Animal Model: | Tg-CYP2D6 adult male mice (8 weeks of age and weighing 20–25 g)[2] |
| Dosage: | 1% (w/w) Cholic acid-supplemented diet |
| Administration: | Oral, 14 days |
| Result: | Decreases SHP expression and increased CYP2D6 activity. |

## CUSTOMER VALIDATION

- Cell Res. 2019 Mar;29(3):193-205.
- Front Cell Dev Biol. 22 July 2022.

See more customer validations on www.MedChemExpress.com

## REFERENCES

[1]. Li Y, et al. Mechanism of hepatic targeting via oral administration of DSPE-PEG-Cholic acid-modified nanoliposomes. Int J Nanomedicine. 2017 Feb 28;12:1673-1684.

[2]. Pan X, et al. Cholic acid Feeding Leads to Increased CYP2D6 Expression in CYP2D6-Humanized Mice. Drug Metab Dispos. 2017 Apr;45(4):346-352.



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