PRODUCT INFORMATION



3-Oxocholic Acid

Item No. 28403

| CAS Registry No.: | 2304-89-4 | |
|-------------------|------------------------------------------------|------|
| Formal Name: | (5β,7α,12α)-7,12-dihydroxy-3-oxo- | `` |
| | cholan-24-oic acid | ОН О |
| Synonym: | 3-Dehydrocholic Acid | ОН |
| MF: | C ₂₄ H ₃₈ O ₅ | |
| FW: | 406.6 | |
| Purity: | ≥95% | |
| UV/Vis.: | λ _{max} : 284 nm | |
| Supplied as: | A crystalline solid | O OH |
| Storage: | -20°C | Н |
| Stability: | ≥4 years | |

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

3-Oxocholic acid is supplied as a crystalline solid. A stock solution may be made by dissolving the 3-oxocholic acid in the solvent of choice, which should be purged with an inert gas. 3-Oxocholic acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 3-oxocholic acid in these solvents is approximately 30 mg/ml.

3-Oxocholic acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 3-oxocholic acid should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. 3-Oxocholic acid has a solubility of approximately 0.25 mg/ml in a 1:3 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

3-Oxocholic acid is a secondary bile acid and a metabolite of cholic acid (Item No. 20250) in C. perfringens, a bacteria found in the intestines of mammals and in the environment.^{1,2} 3-Oxocholic acid serum levels increase following ileal transposition surgery in rats.³

References

- 1. Wahlström, A., Sayin, S.I., Marschall, H.-I., et al. Intestinal crosstalk between bile acids and microbiota and its impact on host metabolism. Cell Metab. 24(1), 41-50 (2016).
- 2. Macdonald, I.A., Forrest, T.P., Costain, G.A., et al. Identification of 7α-, 12α-dihydroxy-3-oxo cholanoic acid as the major degradation product from cholic by C. perfringens. J. Steroid Biochem. 9(4), 353-358 (1978).
- 3. Yan, K., Chen, W., Zhu, H., et al. The changes of serum metabolites in diabetic GK rats after ileal transposition surgery. Obes. Surg. 29(3), 882-890 (2019).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFFTY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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1180 EAST ELLSWORTH RD ANN ARBOR, MI 48108 · USA PHONE: [800] 364-9897 [734] 971-3335 FAX: [734] 971-3640 CUSTSERV@CAYMANCHEM.COM WWW.CAYMANCHEM.COM