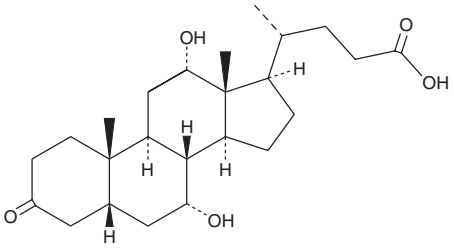
PRODUCT INFORMATION

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
Synonym:	3-Dehydrocholic Acid
MF:	$C_{24}H_{38}O_5$
FW:	406.6
Purity:	≥95%
UV/Vis.:	λ_{max}: 284 nm
Supplied as:	A crystalline solid
Storage:	-20°C
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).

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