

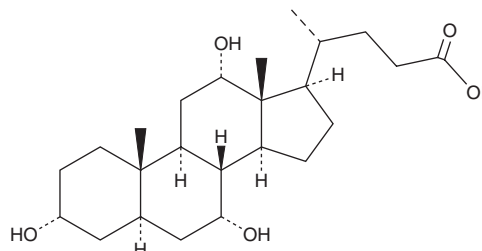
# PRODUCT INFORMATION



## Allocholic Acid

Item No. 30415

**CAS Registry No.:** 2464-18-8  
**Formal Name:** (3 $\alpha$ ,5 $\alpha$ ,7 $\alpha$ ,12 $\alpha$ )-3,7,12-trihydroxy-  
cholan-24-oic acid  
**Synonyms:** ACA, AlloCA, *allo*-Cholic Acid,  
5 $\alpha$ -Allocholic Acid  
**MF:** C<sub>24</sub>H<sub>40</sub>O<sub>5</sub>  
**FW:** 408.6  
**Purity:**  $\geq$ 95%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:**  $\geq$ 4 years



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

### Laboratory Procedures

Allocholic acid is supplied as a solid. A stock solution may be made by dissolving the allocholic acid in the solvent of choice, which should be purged with an inert gas. Allocholic acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of allocholic acid in ethanol and DMSO is approximately 20 mg/ml and approximately 30 mg/ml in DMF.

Allocholic acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, allocholic acid should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Allocholic acid has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Allocholic acid is a bile acid and an isomer of cholic acid (Item No. 20250).<sup>1</sup> It is typically produced in the fetal or larval stages of development but has been found in adult mammals in the context of cancer or during liver regeneration in rats.<sup>1,2</sup> Allocholic acid is a precursor to petromyzonol (Item No. 98250), a bile acid of larval sea lamprey that acts as a migratory pheromone.<sup>3</sup> The levels of allocholic acid are elevated in the plasma of *mdr2*<sup>-/-</sup> mice, a model of bile duct inflammation leading to hepatocellular carcinoma.<sup>4</sup>

### References

1. Mendoza, M.E., Monte, M.J., Serrano, M.A., *et al.* Physiological characteristics of *allo*-cholic acid. *J. Lipid Res.* **44**(1), 84-92 (2003).
2. Monte, M.J., Martinez-Diez, M.C., El-Mir, M.Y., *et al.* Changes in the pool of bile acids in hepatocyte nuclei during rat liver regeneration. *J. Hepatol.* **36**(4), 534-542 (2002).
3. Gandre-Babbe, S. and van der Bliek, A.M. The novel tail-anchored membrane protein Mff controls mitochondrial and peroxisomal fission in mammalian cells. *Mol. Biol. Cell* **19**(6), 2402-2412 (2008).
4. Han, J., Liu, Y., Wang, R., *et al.* Metabolic profiling of bile acids in human and mouse blood by LC-MS/MS in combination with phospholipid-depletion solid-phase extraction. *Anal. Chem.* **87**(2), 1127-1136 (2015).

#### WARNING

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

#### SAFETY 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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