**PRODUCT INFORMATION**

**Glycochenodeoxycholic Acid (sodium salt hydrate)**

*Item No. 16942*

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**Formal Name:** \(N\)\(-[(3α,5β,7α)-3,7-dihydroxy-24-oxocholan-24-yl]-glycine, monosodium salt, hydrate\)

**Synonyms:** GCDCA, NSC 681056

**MF:** \(C_{26}H_{42}NO_5 \cdot Na[XH_2O]\)

**FW:** 471.6

**Purity:** ≥95%

**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.

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**Laboratory Procedures**

Glycochenodeoxycholic acid (GCDCA) (sodium salt hydrate) is supplied as a crystalline solid. A stock solution may be made by dissolving the GCDCA (sodium salt hydrate) in the solvent of choice, which should be purged with an inert gas. GCDCA (sodium salt hydrate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of GCDCA (sodium salt hydrate) in these solvents is approximately 15, 10, and 5 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of GCDCA (sodium salt hydrate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of GCDCA (sodium salt hydrate) in PBS (pH 7.2) is approximately 1 mg/ml.

We do not recommend storing the aqueous solution for more than one day.

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**Description**

Glycochenodeoxycholic acid (GCDCA) is a glycine-conjugated form of the primary bile acid chenodeoxycholic acid (Item No. 10011286). It reduces formation of cholic acid (Item No. 20250) in primary human hepatocytes when used at a concentration of 100 µM. GCDCA (50, 75, and 100 µM) reduces the number of LC3 puncta, a marker of autophagy, and is cytotoxic to L-02 hepatocytes. GCDCA (50 µM) induces apoptosis in isolated rat hepatocytes, an effect that can be blocked by the protein kinase C (PKC) inhibitor chelerythrine (Item No. 11314). Fecal levels of GCDCA are decreased in a rat model of high-fat diet-induced obesity compared with rats fed a normal diet.

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**References**