Product Name: 27-Hydroxycholesterol  
Catalog No.: 3907  
Batch No.: 3

CAS Number: 20380-11-4

IUPAC Name: (3β,25R)-Cholest-5-ene-3,26-diol

1. PHYSICAL AND CHEMICAL PROPERTIES
   
   Batch Molecular Formula: C_{27}H_{46}O_{2}
   
   Batch Molecular Weight: 402.65
   
   Physical Appearance: White solid
   
   Solubility: ethanol to 20 mM
   
   Storage: Store at -20°C
   
   Batch Molecular Structure:

   ![batch molecular structure]

2. ANALYTICAL DATA
   
   TLC: R_f = 0.6 (Ethyl acetate:Petroleum ether [1:1])
   
   HPLC: Shows 97.6% purity
   
   ^1H NMR: Consistent with structure
   
   Mass Spectrum: Consistent with structure
   
   Microanalysis:

<table>
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<th>Theoretical</th>
<th>Found</th>
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<tbody>
<tr>
<td>C</td>
<td>H</td>
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Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use
**Product Information**

**Product Name:** 27-Hydroxycholesterol  
**Catalog No.:** 3907  
**Batch No.:** 3

**CAS Number:** 20380-11-4  
**IUPAC Name:** (3β,25R)-Cholest-5-ene-3,26-diol

**Description:**  
27-Hydroxycholesterol is a liver X receptor (LXR) agonist. Also estrogen receptor partial agonist. Suppresses β-estradiol-mediated breast cancer cell proliferation in vitro. Also increases α-synuclein levels and induces apoptosis in human neuroblastoma cells in vitro. Endogenous cholesterol metabolite.

**Physical and Chemical Properties:**

- **Batch Molecular Formula:** C₂₇H₄₆O₂
- **Batch Molecular Weight:** 402.65
- **Physical Appearance:** White solid
- **Minimum Purity:** ≥98%
- **Batch Molecular Structure:**

**Storage:** Store at -20°C

**Solubility & Usage Info:**

ethanol to 20 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath). Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

- **SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.
- **SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

- **Fu et al** (2001) 27-hydroxycholesterol is an endogenous ligand for liver X receptor in cholesterol-loaded cells. J.Biol.Chem. 276 38378. PMID: 11504730.