

**Product Name:** Ceramide

**Catalog No.:** 0744

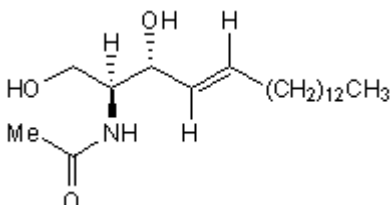
**Batch No.:** 5

CAS Number: 3102-57-6

IUPAC Name: *N*-Acetylsphingosine

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>20</sub>H<sub>39</sub>NO<sub>3</sub>·¼H<sub>2</sub>O  
**Batch Molecular Weight:** 346.03  
**Physical Appearance:** White solid  
**Solubility:** ethanol to 100 mM  
DMSO to 100 mM  
**Storage:** Desiccate at -20°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**TLC:** R<sub>f</sub> = 0.22 (Dichloromethane:Methanol [9:1])  
**HPLC:** Shows 99.8% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	69.42	11.51	4.05
Found	69.67	11.41	4.02

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

**Product Name:** Ceramide

**Catalog No.:** 0744

**Batch No.:** 5

CAS Number: 3102-57-6

IUPAC Name: *N*-Acetylsphingosine

**Description:**

A potent modulator of cell proliferation and differentiation. Activates protein phosphatase-1 (PP1) and -2A (PP2A), as well as ceramide-activated protein phosphatase (CAPP) in vitro.

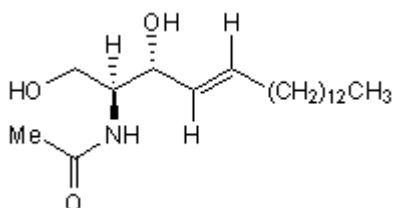
**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>20</sub>H<sub>39</sub>NO<sub>3</sub>·¼H<sub>2</sub>O

Batch Molecular Weight: 346.03

Physical Appearance: White solid

**Batch Molecular Structure:**



**Storage:** Desiccate at -20°C

**Solubility & Usage Info:**

ethanol to 100 mM

DMSO to 100 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:**

**Kim *et al*** (1991) Identification of sphingomyelin turnover as an effector mechanism for the action of tumor necrosis factor α and γ-interferon. *J.Biol.Chem.* **266** 484. PMID: 1845977.

**Dobowsky and Hannun** (1992) Ceramide stimulates a cytosolic protein phosphatase. *J.Biol.Chem.* **267** 5048. PMID: 1312082.

**Quintans *et al*** (1994) Ceramide mediates the apoptotic response of WEHI 231 cells to anti-immunoglobulin, corticosteroids and irradiation. *Biochem.Biophys.Res.Comm.* **202** 710. PMID: 8048941.

**Xie and Johnson** (1997) Ceramide selectively decreases tau levels in differentiated PC12 cells through modulation of calpain I. *J.Neurochem.* **69** 1020. PMID: 9282924.

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

**bio-techne.com**

info@bio-techne.com

techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

www.tocris.com/distributors

Tel: +1 612 379 2956