

## C18:1 Ceramide (d18:1/18:1(9Z))

## Chemical Properties

CAS No. : 5966-28-9

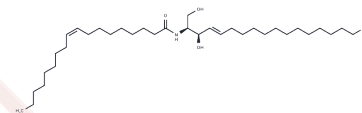
Formula: C<sub>36</sub>H<sub>69</sub>NO<sub>3</sub>

Molecular Weight: 563.94

Keep away from direct sunlight

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

|               |   |
|---------------|---|
| Description   | C18:1 Ceramide (d18:1/18:1(9Z)) is a ceramide, and C18:1-Ceramide levels are elevated in overweight and insulin-resistant mice and cattle, as well as in plasma and ovarian tissue of patients with advanced ovarian cancer.            |
| Targets(IC50) | Endogenous Metabolite   |
| In vitro      | Exogenous C18:1-Ceramide (5 $\mu$ M, 24 h) significantly increased the survival of mouse primary retinal ganglion cells (RGCs) and reduced apoptosis induced by oxygen-glucose deprivation/reperfusion (OGD/R)[1].                      |
| In vivo       | Intravitreal injection of C18:1-Ceramide (1 $\mu$ L, 10 $\mu$ M) in a mouse optic nerve ischemia model improved structural integrity and reduced RGC apoptosis, supporting its neuroprotective potential in ischemic retinal injury[1]. |

## Solubility Information

|            |   |
|------------|---|
| Solubility | DMF: 80 mg/mL (141.86 mM), Sonication is recommended.<br>Chloroform: 4 mg/mL (7.09 mM), Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
|------------|---|

### Preparing Stock Solutions

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|       | 1mg       | 5mg       | 10mg       |
|-------|-----------|-----------|------------|
| 1 mM  | 1.7732 mL | 8.8662 mL | 17.7324 mL |
| 5 mM  | 0.3546 mL | 1.7732 mL | 3.5465 mL  |
| 10 mM | 0.1773 mL | 0.8866 mL | 1.7732 mL  |
| 50 mM | 0.0355 mL | 0.1773 mL | 0.3546 mL  |

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Liu J, Koutalos Y, Fan J. Lack of ceramide synthase 5 protects retinal ganglion cells from ocular hypertensive injury. *Exp Eye Res.* 2024 Oct;247:110061.

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