Catalog # 10-2285
N,N-Dimethylsphingosine
CAS# 119567-63-4
(2S,3R,E)-2-(Dimethylamino)octadeca-4-ene-1,3-diol
Lot # Z10203

Synthetic derivative of D-erythro-sphingosine (synthetic). Endogenous sphingolipid1. Inhibits sphingosine kinase (IC_{50} = 5\mu M)^2. Induces apoptosis in a variety of cell lines3.

1) Igarashi et al. (1990), *A specific enhancing effect of N,N-dimethylsphingosine on epidermal growth factor receptor autophosphorylation. Demonstration of its endogenous occurrence (and the virtual absence of unsubstituted sphingosine) in human epidermal carcinoma A431 cells;* J. Biol. Chem., 265 5385
2) Yatomi et al. (1996), *N,N-dimethylsphingosine inhibition of sphingosine kinase and sphingosine 1-phosphate activity in human platelets;* Biochemistry, 35 626
3) Gude et al. (2008), *Apoptosis induces expression of sphingosine kinase 1 to release sphingosine-1-phosphate as a “come-and-get-me” signal;* FASEB J., 22 2629

**PHYSICAL DATA**

Molecular Weight: 327.56
Molecular Formula: C_{20}H_{41}NO_{2}
Purity: 98% by TLC
NMR (Conforms)
Solubility: DMSO (up to 25 mg/ml) or ethanol (up to 25 mg/ml)
Physical Description: White to off-white waxy solid or viscous oil
Storage and Stability: Store as supplied at -20°C for up to 3 years from the date of purchase. Protect from exposure to moisture. Solutions in DMSO or ethanol may be stored at -20°C for up to 3 months.

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Focus Biomolecules LLC 400 Davis Drive, Suite 600 Plymouth Meeting PA 19462
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