Certificate of Analysis

Product Name: **Fumonisin B1** **Catalog No.: 3103** **Batch No.: 6**

CAS Number: 116355-83-0

IUPAC Name: 1,1'-[(1*S*,2*R*)-1-[(2*S*,4*R*,9*R*,11*S*,12*S*)-12-Amino-4,9,11-trihydroxy-2-methyltridecyl]-2-[(1*R*)-1-methylpentyl] -1,2-ethanediyl-1,2,3-(2*R*,2'*R*)-propanetricarboxylic acid ester.

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{34}H_{59}NO_{15}$

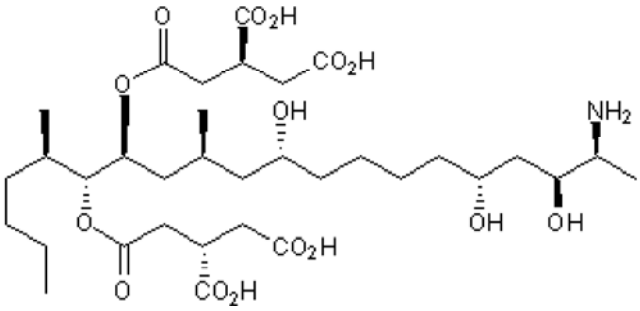
Batch Molecular Weight: 721.83

Physical Appearance: White solid

Solubility: DMSO to 10 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 100% purity

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Description:

Mycotoxin produced by Fusarium moniliforme. Potently inhibits sphingosine N-acyltransferase (ceramide synthase), causing an accumulation of sphingoid bases (IC_{50} ~ 75 nM). Also inhibits protein phosphatases; IC_{50} values are 80, 300, 400, 500 and 3000 µM for PP5, PP2Cα, PP2A, PP1γ2 and PP2B respectively.

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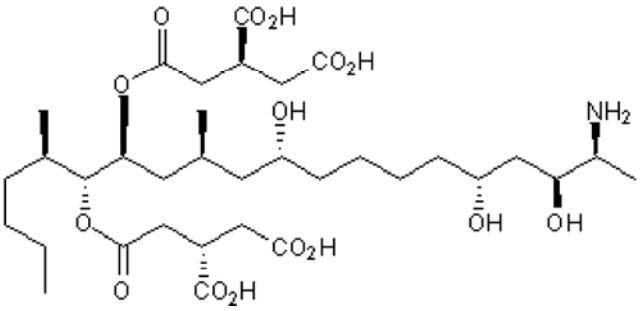

Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 10 mM

This product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

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:

Blazquez *et al* (2008) Cannabinoids inhibit glioma cell invasion by down-regulating matrix metalloproteinase-2 expression. Cancer Res. ***68*** 1945. PMID: 18339876.

Fukuda *et al* (1996) Inhibition of protein serine/threonine phosphatases by Fumonisin B1, a mycotoxin. Biochem.Biophys.Res.Comms. ***220*** 160.

Merrill *et al* (1993) Fumonisin B_1 inhibits sphingosine (sphinganine) *N*-acyltransferase and *de novo* sphingolipid biosynthesis in cultured neurons *in situ*. J.Biol.Chem. ***268*** 27299. PMID: 8262970.

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