

Fumonisin B1

Chemical Properties

CAS No. : 116355-83-0

Formula: C₃₄H₅₉N₃O₁₅

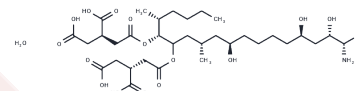
Molecular Weight: 721.83

Storage:

Store at low temperature, Keep away from direct sunlight, Store under nitrogen

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

Actual storage temperature shall be subject to the COA.



Biological Description

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|---------------|--|
| Description | Fumonisin B1 (Fumonisin-B1) is a mycotoxin produced by <i>Fusarium oxysporum</i> that is widely present in crops, contaminating them and posing a significant food safety hazard. Fumonisin B1 is structurally a sphingosine and sphingomyelin analog, and inhibits the biosynthesis of complex sphingolipids through the inhibition of ceramidic synthases. |
| Targets(IC50) | Acyltransferase |
| In vitro | The mRNA expression of P21 was significantly increased after 0.1 μmol/L Fumonisin B1 treatment, and the mRNA expression of P21 was significantly decreased after 10.0 and 100.0 μmol / l Fumonisin B1 treatment[1]. |

Solubility Information

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|------------|---|
| Solubility | H ₂ O: 16 mg/mL (22.17 mM), Sonication is recommended. Methanol: 5 mg/mL (6.93 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble) |
|------------|---|

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|------------|------------|-------------|
| 1 mM | 1.3854 mL | 6.9268 mL | 13.8537 mL |
| 5 mM | 0.2771 mL | 1.3854 mL | 2.7707 mL |
| 10 mM | 0.1385 mL | 0.6927 mL | 1.3854 mL |
| 50 mM | 0.0277 mL | 0.1385 mL | 0.2771 mL |

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

Henry MH, et al. The toxicity of fumonisin B₁, B₂, and B₃, individually and in combination, in chicken embryos. *Poult Sci.* 2001 Apr;80(4):401-7.

Shephard GS, et al. Disruption of sphingolipid metabolism in non-human primates consuming diets of fumonisin-containing *Fusarium moniliforme* culture material. *Toxicol.* 1996 May;34(5):527-34.

Wang SK, et al. Effect of fumonisin B₁ on the cell cycle of normal human liver cells. *Mol Med Rep.* 2013 Jun;7(6):1970-6.

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