
Product Data Sheet

Product Name: Amidepsine D

Cat. No.: GC17013

Chemical Properties

Cas. No. 79786-34-8

Chemical Name 4-[(2,4-dimethoxy-6-methylbenzoyl)oxy]-2-hydroxy-6-methyl-benzoic acid, 4-carboxy-3-hydroxy-5-methylphenyl ester

SMILES OC1=C(C(O)=O)C(C)=CC(OC(C2=C(O)C=C(OC(C3=C(C)C=C(OC)C=C3OC)=O)C=C2C)=O)=C1

Formula $C_{26}H_{24}O_{10}$ M.Wt 496.5

Solubility Methanol: Soluble Storage Store at -20°C

General For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure

Background

Amidepsine D is a fungal metabolite isolated from the culture broth of *Humicola* sp FO-2942. Amidepsine A is an inhibitor of diacylglycerol acyltransferase (DGAT).

Diacylglycerol acyltransferase (DGAT) has been involved in catalyzing the formation of triglycerides from diacylglycerol and Acyl-CoA. The reaction is considered the terminal and only committed step in triglyceride synthesis and is essential for the formation of adipose tissue. There are two isozymes of DGAT that have been identified: DGAT1 and DGAT2. DGAT-1 deficient mice are lean and resistant to the development of diet-induced obesity or insulin resistance [1]. DGAT2^{-/-} mice demonstrate reduced triglyceride levels and suffer from skin barrier abnormalities [2].

FO-2942 inhibited DGAT activity with an IC₅₀ of 10.2 μM in rat liver microsomes. FO-2942 inhibited triacylglycerol formation in Raji cells with the IC₅₀ value of 15.5 μM [1].

References:

[1] Tomoda H, Tabata N, Ito M, et al. Amidepsines, inhibitors of diacylglycerol acyltransferase produced by *Humicola* sp. FO-2942[J]. *The Journal of antibiotics*, 1995, 48(9): 942-947.

[2] Smith S J, Cases S, Jensen D R, et al. Obesity resistance and multiple mechanisms of triglyceride synthesis in mice lacking Dgat[J]. *Nature genetics*, 2000, 25(1): 87-90.

[3] Stone S J, Myers H M, Watkins S M, et al. Lipopenia and skin barrier abnormalities in DGAT2-deficient mice[J]. *Journal of Biological Chemistry*, 2004, 279(12): 11767-11776.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA