Product Data Sheet

Product Name: Amidepsine A
Cat. No.: GC11675

Chemical Properties

Cas. No.	169181-28-6		
Chemical Name	2,4-dimethoxy-6-methyl-benzoic acid, 4-[[4-[[(1-carboxyethyl)amino]carbonyl]-3-hydroxy-5-methylphenoxy]carbonyl]-3-hydroxy-5-methylphenyl ester		
SMILES	OC1=C(C(NC(C)C(O)=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	$C_{29}H_{29}NO_{11}$	M.Wt	567.5
Solubility	DMSO : 5.79 mg/mL (10.20 mM; Need ultrasonic and warming)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ 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	Amidepsine A		

Background

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

Dylglycerol 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 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.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA