

CAY10583

Chemical Properties

CAS No. : 862891-27-8

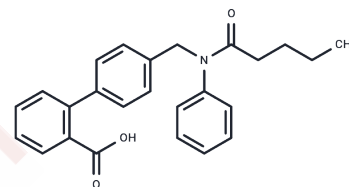
Formula: C₂₅H₂₅NO₃

Molecular Weight: 387.47

Store at low temperature

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

Actual storage temperature shall be subject to the COA.



Biological Description

Description	CAY10583 is a potent and selective BLT2 (leukotriene B4 receptor type 2) agonist that increases TGF- β 1 and bFGF expression, promotes keratinocyte migration and fibroblast proliferation, and accelerates wound healing in diabetic mice.
Targets(IC50)	FGFR,Leukotriene Receptor,TGF-beta/Smad
In vitro	CAY10583 significantly activated AMPK in human hepatocellular carcinoma HepG2 cells. Treatment with 50 μ M CAY10583 for 1 hour increased phosphorylation levels of AMPK and its downstream target ACC, indicating metabolic regulatory activity as an AMPK activator. CAY10583 also suppressed expression of lipogenesis-related proteins such as FAS and SREBP-1c[1].
In vivo	In high-fat diet-induced obese mice, CAY10583 was administered intraperitoneally at 10 mg/kg once daily for 4 weeks. The treatment significantly reduced body weight gain, serum total cholesterol, and triglyceride levels, and increased phosphorylation of AMPK and ACC in liver tissues, indicating lipid metabolism improvement and anti-obesity effects[1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5808 mL	12.9042 mL	25.8084 mL
5 mM	0.5162 mL	2.5808 mL	5.1617 mL
10 mM	0.2581 mL	1.2904 mL	2.5808 mL
50 mM	0.0516 mL	0.2581 mL	0.5162 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

Luo L, Tanaka R, Kanazawa S, Lu F, Hayashi A, Yokomizo T, Mizuno H. A synthetic leukotriene B(4) receptor type 2 agonist accelerates the cutaneous wound healing process in diabetic rats by indirect stimulation of fibroblasts and direct stimulation of keratinocytes. J Diabetes Complications. 2017 Jan;31(1):13-20. doi: 10.1016/j.jdiacomp.2016.09.002. PubMed PMID: 27742551.

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