Data Sheet (Cat.No.TN2083)

TargetMol
A DRUG SCREENING EXPERT

Pinostrobin chalcone

Chemical Properties

CAS No.:	18956-15-5
Formula:	C16H14O4
Molecular Weight:	270.3
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Pinostrobin chalcone is a potent inhibitor of triglyceride accumulation, it can inhibit adipogenesis in 3T3-L1 cells, it may have anti-obesity effects through the inhibition of adipogenesis.
Targets(IC_{50})	Fatty Acid Synthase: None
In vitro	A methanol extract of the dried branches and leaves of murta inhibited adipogenesis in 3T3-L1 cells. Three known flavanones-cryptostrobin (1), pinocembrin (4), and 5,7-dihydroxy-6,8-dimethylflavanone (6), and three chalcones-2',6'-dihydroxy-3'-methyl-4'-methoxychalcone (2), Pinostrobin chalcone (3), and 2',6'-dihydroxy-4'-methoxy-3',5'-dimethylchalcone (5) were isolated from the active fraction. Structures of these compounds were identified using various spectral data. Each of these compounds also inhibited adipogenesis in 3T3-L1 cells. In particular, compound 3 was a more potent inhibitor of triglyceride accumulation than the positive control berberine. Gene expression studies revealed that treatment of 3T3-L1 cells with 3 lowers the expression levels of CCAAT/enhancer-binding protein α± and peroxisome proliferator activator γ2 during adipogenesis without affecting cell viability. Treatment of 3T3-L1 cells with 3 reduced the expression levels of mRNAs encoding sterol regulatory element-binding protein 1c and several lipogenic enzymes, including fatty acid synthase and stearoyl CoA desaturase-1.

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.7 mL	18.498 mL	36.996 mL
5 mM	0.74 mL	3.7 mL	7.399 mL
10 mM	0.37 mL	1.85 mL	3.7 mL
50 mM	0.074 mL	0.37 mL	0.74 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Inhibitory effects of compounds isolated from the dried branches and leaves of murta (Myrceugenia euosma) on lipid accumulation in 3T3-L1 cells.J Nat Med. 2016 Jul;70(3):502-9.

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