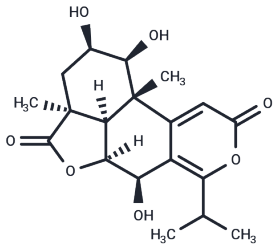
Data Sheet (Cat.No.T16264)

TargetMol

Nagilactone B

Chemical Properties



CAS No. : 19891-51-1

Formula: C19H24O7

Molecular Weight: 364.39

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	Nagilactone B is extracted from the root bark of Podocarpus nagi and it also is a liver X receptor (LXR) agonist.
Targets(IC50)	Others,Liver X Receptor
In vitro	Nagilactone B (NLB) significantly ameliorates intracellular lipid accumulation. Nagilactone B (0.02, 0.1, and 0.5?μM) markedly promotes cholesterol efflux to extracellular apolipoprotein A-I (apoA-I) and high density lipoprotein (HDL) with maximal 5.72- (P<0.05) and 2.34-fold (P<0.01), respectively. RAW264.7 cells are co-incubated with oxLDL (20?μg/mL) and Nagilactone B (0.02, 0.1, and 0.5?μM) for 24?h. ORO positive areas are reduced by 30.05±7.49 (P<0.01), 47.25±5.39 (P<0.001), and 48.65 ±7.44% (P<0.001) in Nagilactone B (0.02, 0.1, and 0.5 μM)-treated groups, respectively .
In vivo	Nagilactone B (NLB) inhibits atherosclerosis in apoE-/- mice by inducing ATP-binding cassette transporter A1 (ABCA1) and G1 (ABCG1) mediated cholesterol efflux in macrophages. Nagilactone B treatment (10 and 30 mg/kg/day) obviously decreases en face aortic lesions, compared with the HFD group by 54.96±10.06% (P<0.01), 71.50±15. 37% (P<0.001) in both NLB (L) and NLB (H) groups. In particular, Nagilactone B markedly attenuates atherosclerotic plaque lesion areas in the aortic arch aorta, thoracic aorta, and abdominal aorta [P<0.01 in NLB (H) group]. Male apoE-deficient mice on C57BL/6J background receive Nagilactone B (10 and 30?mg/kg) for 12 weeks. Compared with the model group, Nagilactone B treatment (10 and 30?mg/kg) significantly decreases en face lesions of total aorta areas. Six-week-old male apoE-/- mice on an HFD are randomized to receive Atorvastatin (10 mg/kg/day), Nagilactone B (10 and 30? mg/kg/day), or CMC-Na for 12 weeks. Mice on a chow diet are administered CMC-Na as the normal diet control group .

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7443 mL	13.7216 mL	27.4431 mL
5 mM	0.5489 mL	2.7443 mL	5.4886 mL
10 mM	0.2744 mL	1.3722 mL	2.7443 mL
50 mM	0.0549 mL	0.2744 mL	0.5489 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

Gui Y, et al. A novel small molecule liver X receptor transcriptional regulator, nagilactone B, suppresses atherosclerosis in apoE-deficient mice. Cardiovasc Res. 2016 Oct;112(1):502-14.