

Norathyriol

Chemical Properties

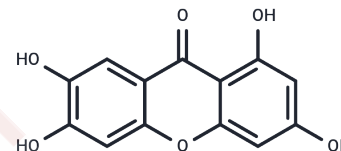
CAS No. : 3542-72-1

Formula: C₁₃H₈O₆

Molecular Weight: 260.2

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	Norathyriol is a potent PTP1B inhibitor with good cell permeability and oral availability.
Targets(IC50)	Akt,AMPK,Glucosidase,DNA/RNA Synthesis,glycosidase,PPAR
In vitro	Normal or IR L6 myotubes were incubated with Norathyriol (2.5 - 10 μM, 0.625 - 2.5 μM), mangiferin (10 - 40 μM, 2.5 - 10 μM) or rosiglitazone (20 μM) and/or 0.05 nM insulin for 24 h, respectively. The glucose consumption was assessed using the glucose oxidase method. Immunoblotting was performed to detect protein kinase B (PKB/Akt) and AMP-activated protein kinase (AMPK) phosphorylation in L6 myotubes cells. Norathyriol and mangiferin treatment alone increased the glucose consumption 61.9 and 56.3%, respectively, in L6 myotubes and made additional increasing with 0.05 nM insulin. In IR L6 myotubes, Norathyriol treatment made increasing with or without insulin, mangiferin treatment also made increasing but only when co-treated with insulin. Immunoblotting results showed that Norathyriol and mangiferin produced an increase of 1.9 - and 1.8-fold in the phosphorylation levels of the AMPK, but not in Akt[1]

Solubility Information

Solubility	DMSO: 145 mg/mL (557.26 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (7.69 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.8432 mL	19.216 mL	38.432 mL
5 mM	0.7686 mL	3.8432 mL	7.6864 mL
10 mM	0.3843 mL	1.9216 mL	3.8432 mL
50 mM	0.0769 mL	0.3843 mL	0.7686 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

Mangiferin and its aglycone, norathyriol, improve glucose metabolism by activation of AMP-activated protein kinase. *Pharm Biol.* 2014 Jan;52(1):68-73.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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