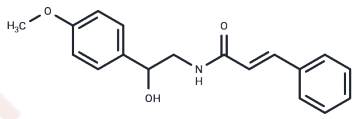
Data Sheet (Cat.No.T7846)

TargetMol

Aegeline

Chemical Properties



CAS No. : 456-12-2

Formula: C18H19NO3

Molecular Weight: 297.35

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	Aegeline is an alkaloidal-amide, isolated from the leaves of Aegle marmelos and have shown antihyperglycemic as well as antidyslipidemic activities in the validated animal models of type 2 diabetes mellitus.
Targets(IC50)	Antifungal
In vitro	Aegeline enhanced GLUT4 translocation mediated 2-deoxy-glucose uptake in both time and concentration-dependent manner.?2-deoxy-glucose uptake was completely stymied by the transport inhibitors (wortmannin and genistein) in C2C12 myotubes.? Pharmacological inhibition of Akt (also known as protein kinase B) and Ras-related C3 botulinum toxin substrate 1 (Rac1) suggest that both Akt and Rac1 operate aegeline-stimulated glucose transport via distinct parallel pathways.?Moreover, aegeline activates p21 protein-activated kinase 1 (PAK1) and cofilin (an actin polymerization regulator).?Rac1 inhibitor (Rac1 inhib II) and PAK1 inhibitor (IPA-3) completely blocked aegeline-induced phosphorylation of cofilin and p21 protein-activated kinase 1 (PAK1) [1].

Solubility Information

Solubility	DMSO: 25 mg/mL (84.08 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2 mg/mL (6.73 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.363 mL	16.8152 mL	33.6304 mL
5 mM	0.6726 mL	3.363 mL	6.7261 mL
10 mM	0.3363 mL	1.6815 mL	3.363 mL
50 mM	0.0673 mL	0.3363 mL	0.6726 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

Aegeline from Aegle marmelos stimulates glucose transport via Akt and Rac1 signaling, and contributes to a cytoskeletal rearrangement through PI3K/Rac1[J]. European Journal of Pharmacology, 2015, 762:419-429.
Nugroho A E , Riyanto S , Sukari M A , et al. EFFECTS OF AEGELINE, A MAIN ALKALOID OF AEGLE MARMELOS CORREA LEAVES, ON THE HISTAMINE RELEASE FROM MAST CELLS[J]. Pakistan Journal of Pharmaceutical Sciences, 2011, 24 (24):359-367.