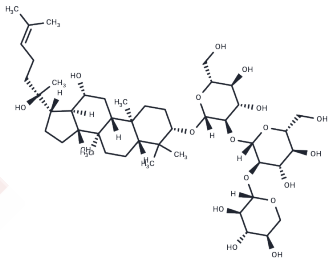
Data Sheet (Cat.No.T5761)

TargetMol

Notoginsenoside Ft1

Chemical Properties



CAS No. : 155683-00-4

Formula: C47H80O17

Molecular Weight: 917.13

Storage: Keep away from direct sunlight
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	Notoginsenoside Ft1 is a saponin originally isolated from P. notoginseng with diverse biological activities
Targets(IC50)	Apoptosis,HIF/HIF Prolyl-Hydroxylase
In vitro	Notoginsenoside Ft1 (Ft1) is a novel stimulator of angiogenesis. Ft1 induces proliferation, migration, and tube formation in cultured human umbilical vein endothelial cells (HUVECs). Ft1 increases translocalization of hypoxia-inducible factor-1α (HIF-1α) from cytoplasm to nuclei, where it binds to the vascular endothelial growth factor (VEGF) promoter, increasing the expression of VEGF mRNA and the subsequent secretion of the growth factor. Ft1 induces the activation of PI3K/AKT and Raf/MEK/ERK signaling pathways. Pharmacological inhibition with LY294002, wortmanin or PD98059 reduces Ft1-induced angiogenesis, indicating the important role played by these pathways. In addition, Ft1 induces phosphorylation of the mammalian target of rapamycin (mTOR), and siRNA-mediated mTOR knockdown decreases tube formation, proliferation, transport of HIF-1α into nuclei and VEGF mRNA expression in response to Ft1[1].Among the saponins examined, Notoginsenoside Ft1(Ft1) was the most potent procoagulant and induced dose-dependent platelet aggregation. Ft1 reduced plasma coagulation indexes, decreased tail bleeding time and increased thrombogenesis. Moreover, it potentiated ADP-induced platelet aggregation and increased cytosolic Ca (2+) accumulation, effects that were attenuated by clopidogrel[2].
Kinase Assay	Platelet aggregation was analysed using a platelet aggregometer. Prothrombin time, activated partial thromboplastin time and thrombin time were measured using a blood coagulation analyser, which was further corroborated with bleeding time and thrombotic assays[2].

Solubility Information

Solubility	DMSO: 145 mg/mL (158.1 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 (2.18 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	1.0904 mL	5.4518 mL	10.9036 mL
5 mM	0.2181 mL	1.0904 mL	2.1807 mL
10 mM	0.109 mL	0.5452 mL	1.0904 mL
50 mM	0.0218 mL	0.109 mL	0.2181 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

Shen K , Ji L , Gong C , et al. Notoginsenoside Ft1 promotes angiogenesis via HIF-1α mediated VEGF secretion and the regulation of PI3K/AKT and Raf/MEK/ERK signaling pathways[J]. Biochemical Pharmacology, 2012, 84(6).
Gao B , Huang L , Liu H , et al. Platelet P2Y12 receptor involved in the hemostatic effect of notoginsenoside Ft1, a saponin isolated from Panax notoginseng[J]. British Journal of Pharmacology, 2013, 171(1):214-223.