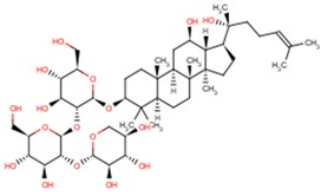
Data Sheet (Cat.No.T5761)

TargetMol
A DRUG SCREENING EXPERT

Notoginsenoside Ft1

Chemical Properties



CAS No.:	155683-00-4
Formula:	C47H80O17
Molecular Weight:	917.13
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Notoginsenoside Ft1 is a saponin originally isolated from P. notoginseng with diverse biological activities
Targets(IC_{50})	Others: None
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: 10mM (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.09 mL	5.452 mL	10.904 mL
5 mM	0.218 mL	1.09 mL	2.181 mL
10 mM	0.109 mL	0.545 mL	1.09 mL
50 mM	0.022 mL	0.109 mL	0.218 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. 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).

2. 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.

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