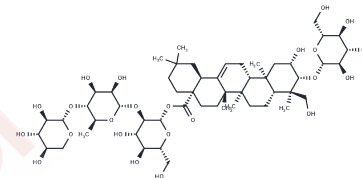


Polygalasaponin F

Chemical Properties

CAS No. :	882664-74-6
Formula:	C53H86O23
Molecular Weight:	1091.24
Storage:	Keep away from direct sunlight Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	Polygalasaponin F has anti-neuroinflammatory activity, can inhibit the release of inflammatory cytokines TNF- α and NO induced by lipopolysaccharides (LPS) and reduce the expression of inducible nitric oxide synthases. Polygalasaponin F can significantly inhibit the cytotoxicity of conditioned medium prepared by LPS-stimulated BV-2 microglia (LPS conditioned media) to neuronal PC12 cells and improve cell viability. Polygalasaponin F can induce long-term potentiation in hippocampal dentate gyrus in anesthetized rats via NMDAR activation mediated by Ca(2+)/calmodulin-dependent kinase II, extracellular signal-regulated kinase and cAMP response element-binding protein signaling pathway. PS-F inhibits the secretions of neuroinflammatory cytokines by the regulation of the NF- κ B-signaling pathway.
Targets(IC50)	NF- κ B,Akt,PI3K,TLR

Solubility Information

Solubility	DMSO: 60 mg/mL (54.98 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 (1.83 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	0.9164 mL	4.5819 mL	9.1639 mL
5 mM	0.1833 mL	0.9164 mL	1.8328 mL
10 mM	0.0916 mL	0.4582 mL	0.9164 mL
50 mM	0.0183 mL	0.0916 mL	0.1833 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

Zhou W, et al. Quantification of polygalasaponin F in rat plasma using liquid chromatography-tandem mass spectrometry and its pharmacokinetics application. *Biomed Chromatogr.* 2015 Sep;29(9):1388-92.

Chen Y, Li H, Yang Y, et al. Polygalasaponin F ameliorates middle cerebral artery occlusion-induced focal ischemia/reperfusion injury in rats through inhibiting TXNIP/NLRP3 signaling pathway. *Journal of Neuroimmunology.* 2024: 578281.

Wei WWei, et al. Polygalasaponin F inhibits secretion of inflammatory cytokines via NF- κ B pathway regulation. *J Asian Nat Prod Res.* 2014;16(8):865-75.

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