

Polygalasaponin F

Chemical Properties

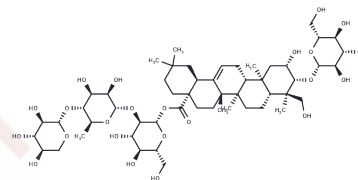
CAS No. : 882664-74-6

Formula: C₅₃H₈₆O₂₃

Molecular Weight: 1091.24

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



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)
------------	---

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.

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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel: 781-999-4286 E_mail: info@targetmol.com Address: 36 Washington Street, Wellesley Hills, MA 02481