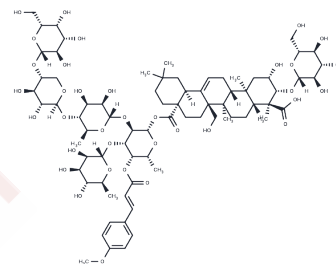


Onjisaponin B

Chemical Properties

CAS No. :	35906-36-6
Formula:	C75H112O35
Molecular Weight:	1573.67
Storage:	Store at low temperature 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	Onjisaponin B induces autophagy via the AMPK-mTOR signaling pathway, increases the NGF level and accelerates both the removal of mutant huntingtin and A53T $\alpha\pm$ -synuclein, it may have potential therapeutic effects on Parkinson disease, Alzheimer disease and Huntington disease.
Targets(IC50)	Apoptosis, Beta Amyloid, NF- κ B, Caspase, AMPK, Autophagy, mTOR
In vitro	In the current study, we aimed to identify autophagy inducers from Chinese medicinal herbs as a potential neuroprotective agent that enhances the clearance of mutant huntingtin and $\alpha\pm$ -synuclein in PC-12 cells. Through intensive screening using the green fluorescent protein-light chain 3 (GFP-LC3) autophagy detection platform, we found that the ethanol extracts of Radix Polygalae (Yuan Zhi) were capable of inducing autophagy. Further investigation showed that among three single components derived from Radix Polygalae--i.e., polygalacic acid, senegenin and Onjisaponin B--Onjisaponin B was able to induce autophagy and accelerate both the removal of mutant huntingtin and A53T $\alpha\pm$ -synuclein, which are highly associated with Huntington disease and Parkinson disease, respectively. Our study further demonstrated that Onjisaponin B induces autophagy via the AMPK-mTOR signaling pathway[1]

Solubility Information

Solubility	DMSO: 50 mg/mL (31.77 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 (1.27 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	0.6355 mL	3.1773 mL	6.3546 mL
5 mM	0.1271 mL	0.6355 mL	1.2709 mL
10 mM	0.0635 mL	0.3177 mL	0.6355 mL
50 mM	0.0127 mL	0.0635 mL	0.1271 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

Onjisaponin B derived from Radix Polygalae enhances autophagy and accelerates the degradation of mutant α -synuclein and huntingtin in PC-12 cells. *Int J Mol Sci.* 2013 Nov 15;14(11):22618-41.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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