

PRODUCT INFORMATION



Onjisaponin B

Item No. 30521

CAS Registry No.: 35906-36-6

Formal Name: (2 β ,3 β ,4 α)-3-(β -D-glucopyranosyloxy)-2,27-dihydroxy-olean-12-ene-23,28-dioic acid, 28-[O-6-deoxy- α -L-mannopyranosyl-(1 $\rightarrow$ 3)-O-[O- β -D-galactopyranosyl-(1 $\rightarrow$ 4)-O- β -D-xylopyranosyl-(1 $\rightarrow$ 4)-6-deoxy- α -L-mannopyranosyl-(1 $\rightarrow$ 2)]-6-deoxy-4-O-[(2E)-3-(4-methoxyphenyl)-1-oxo-2-propen-1-yl]- β -D-galactopyranosyl] ester (E)-Senegin III

Synonym:

MF: C₇₅H₁₁₂O₃₅

FW: 1,573.7

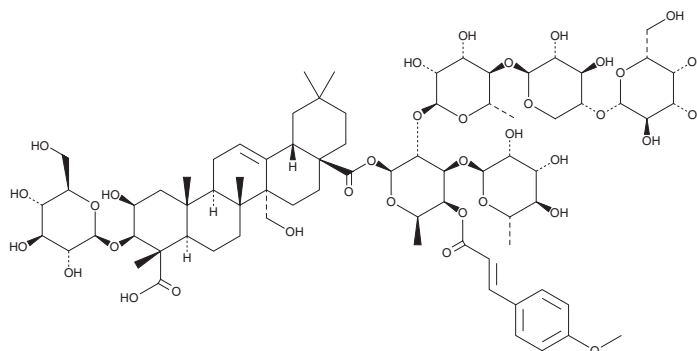
Purity: $\geq$ 95%

Supplied as: A solid

Storage: -20°C

Stability: $\geq$ 4 years

Item Origin: Plant/*Polygala tenuifolia*



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Onjisaponin B is supplied as a solid. A stock solution may be made by dissolving the onjisaponin B in the solvent of choice, which should be purged with an inert gas. Onjisaponin B is soluble in methanol.

Description

Onjisaponin B is a triterpenoid saponin that has been found in *P. tenuifolia* and has neuroprotective activity.¹⁻³ It inhibits glutamate- or serum-starvation-induced neurotoxicity in PC12 cells when used at a concentration of 10 μ M.¹ Onjisaponin B decreases amyloid- β production in HEK293/APPsw cells (IC₅₀ = 10 μ M).² It reduces spatial learning and memory deficits in the Morris water maze in an APP/PS1 transgenic mouse model of Alzheimer's disease when administered at a dose of 10 mg/kg per day. Onjisaponin B (10 and 20 mg/kg) prevents D-galactose-induced decreases in hippocampal glutathione (GSH) levels and increases in hippocampal malondialdehyde (MDA), IL-1 β , IL-6, and TNF- α levels in a rat model of D-galactose-induced aging.³

References

1. Li, C., Yang, J., Yu, S., et al. Triterpenoid saponins with neuroprotective effects from the roots of *Polygala tenuifolia*. *Planta Med.* **74**(2), 133-141 (2008).
2. Li, X., Cui, J., Yu, Y., et al. Traditional Chinese nootropic medicine *Radix Polygalae* and Its active constituent Onjisaponin B reduce β -amyloid production and improve cognitive impairments. *PLoS One* **11**(3), e0151147 (1986).
3. Li, G., Yu, J., Zhang, L., et al. Onjisaponin B prevents cognitive impairment in a rat model of D-galactose-induced aging. *Biomed. Pharmacother.* **99**, 113-120 (2018).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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