# **PRODUCT** INFORMATION



## **Gypenoside IX**

Item No. 29705

CAS Registry No.: Formal Name:	80321-63-7 (3β)-3-(β-D-glucopyranosyloxy)- 12β-hydroxydammar-24-en-20-yl 6-O-β-D-xylopyranosyl-β-D- glucopyranoside	но ОН НО. ОН НО. ОН
Synonym:	Notoginsenoside Fd	
MF:	C <sub>47</sub> H <sub>80</sub> O <sub>17</sub>	OH V
FW:	917.1	
Purity:	≥95%	, Î Î Î Î Î Î Î Î
Supplied as:	A crystalline solid	
Storage:	-20°C	
Stability:	≥4 years	
Item Origin:	Plant/Gynostemma pentaphyllum (Thunb.) Makino	
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.		

#### Laboratory Procedures

Gypenoside IX is supplied as a crystalline solid. A stock solution may be made by dissolving the gypenoside IX in the solvent of choice, which should be purged with an inert gas. Gypenoside IX is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of gypenoside IX in these solvents is approximately 10 mg/ml.

Gypenoside IX is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, gypenoside IX should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Gypenoside IX has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

#### Description

Gypenoside IX is a dammarane-type triterpene saponin that has been found in *P. notoginseng*.<sup>1</sup> It prevents increases in inducible nitric oxide synthase (iNOS), IL-6, and TNF- $\alpha$  levels, as well as phosphorylation of NF- $\kappa$ B, I $\kappa$ B, p38 MAPK, and Akt, induced by LPS and TNF- $\alpha$  in rat C6 glial cells when used at a concentration of 25 μM.<sup>2</sup> In vivo, gypenoside IX (30 mg/kg per day) reduces LPS-induced increases in NF-κB, IκB, p38 MAPK, and Akt phosphorylation in mouse brain cortex.

#### References

- 1. Yoshikawa, M., Morikawa, T., Kashima, Y., et al. Structures of new dammarane-type triterpene saponins from the flower buds of Panax notoginseng and hepatoprotective effects of principal ginseng saponins. J. Nat. Prod. 66(7), 922-927 (2003).
- 2. Wang, X., Yang, L., Yang, L., et al. Gypenoside IX suppresses p38 MAPK/Akt/NFkB signaling pathway activation and inflammatory responses in astrocytes stimulated by proinflammatory mediator. Inflammation 40(6), 2137-2150 (2017).

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

#### SAFFTY 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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