

PRODUCT INFORMATION



Ophiopogonin D

Item No. 34385

CAS Registry No.: 945619-74-9

Formal Name: (1 β ,3 β ,25R)-3-hydroxyspirost-5-en-1-yl
O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-
[β -D-xylopyranosyl-(1 \rightarrow 3)]-6-deoxy- β -D-
galactopyranoside

Synonyms: Deacetylophiopogonin C, OJV-V

MF: C₄₄H₇₀O₁₆

FW: 855.0

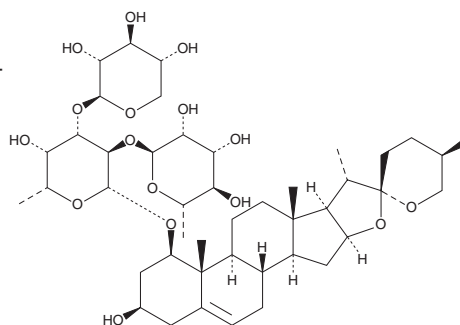
Purity: $\geq 95\%$

Supplied as: A solid

Storage: -20°C

Stability: ≥ 4 years

Item Origin: Plant/*Ophiopogon japonicus*



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

Laboratory Procedures

Ophiopogonin D is supplied as a solid. A stock solution may be made by dissolving the ophiopogonin D in the solvent of choice, which should be purged with an inert gas. Ophiopogonin D is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of ophiopogonin D in ethanol is approximately 15 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Description

Ophiopogonin D is a steroid glycoside that has been found in *O. japonicus* tubers and has diverse biological activities.¹⁻⁴ It induces apoptosis in, and reduces TGF- β 1-induced migration of, MDA-MB-231 human breast cancer cells when used at concentrations of 2.5, 5, or 10 μ M.¹ Ophiopogonin D (10 and 100 μ M) inhibits hydrogen peroxide-induced production of reactive oxygen species (ROS) in RAW 264.7 cells.² It inhibits peritoneal neutrophil infiltration in a mouse model of peritonitis induced by zymosan A (Item No. 21175) when administered at a dose of 1 mg/kg.³ Ophiopogonin D (1 and 2 mg/kg) reduces thrombus weight in a mouse model of venous thrombosis.⁴

References

1. Zhu, X., Wang, K., and Chen, Y. Ophiopogonin D suppresses TGF- β 1-mediated metastatic behavior of MDA-MB-231 breast carcinoma cells *via* regulating ITGB1/FAK/Src/AKT/ β -catenin/MMP-9 signaling axis. *Toxicol. in Vitro* **69**, 104973 (2020).
2. Huang, Q., Gao, B., Wang, L., *et al.* Ophiopogonin D: A new herbal agent against osteoporosis. *Bone* **74**, 18-28 (2015).
3. Kou, J., Sun, Y., Lin, Y., *et al.* Anti-inflammatory activities of aqueous extract from *Radix Ophiopogon japonicus* and its two constituents. *Biol. Pharm. Bull.* **28**(7), 1234-1238 (2005).
4. Kou, J., Tian, Y., Tang, Y., *et al.* Antithrombotic activities of aqueous extract from *Radix Ophiopogon japonicus* and its two constituents. *Biol. Pharm. Bull.* **29**(6), 1267-1270 (2006).

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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