

PRODUCT INFORMATION

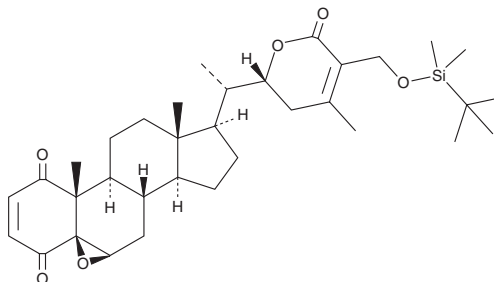


4-oxo-27-TBDMS Withaferin A

Item No. 28323

CAS Registry No.: 1214886-31-3
Formal Name: (5 β ,6 β ,22R)-27-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-5,6-epoxy-22-hydroxy-1,4-dioxo-ergosta-2,24-dien-26-oic acid, δ -lactone

MF: C₃₄H₅₀O₆Si
FW: 582.9
Purity: \geq 98%
UV/Vis.: λ_{\max} : 224 nm
Supplied as: A 10 mg/ml solution in ethanol
Storage: -20°C
Stability: \geq 2 years



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

Laboratory Procedures

4-oxo-27-TBDMS Withaferin A is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of 4-oxo-27-TBDMS withaferin A in these solvents is approximately 5 mg/ml.

For maximum solubility in aqueous buffers, evaporate the ethanol and dissolve in DMSO. The DMSO solution of 4-oxo-27-TBDMS withaferin A should be diluted with the aqueous buffer of choice. 4-oxo-27-TBDMS Withaferin A has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method.

Description

4-oxo-27-TBDMS Withaferin A is a derivative of the steroidal lactone withaferin A (Item No. 11352) that has anticancer activity.¹ It is cytotoxic to A2780 ovarian cancer cells (IC₅₀ = 17 μ M) but not to carboplatin-resistant A2780 (A2780/CP70) cells (IC₅₀ = >100 μ M). It is selective for A2780 cells over non-cancerous ARPE19 cells (IC₅₀ = 1,660 μ M). 4-oxo-27-TBDMS Withaferin A induces DNA fragmentation in A2780 cells.

Reference

1. Perestelo, N.R., Llanos, G.G., Reyes, C.P., *et al.* Expanding the chemical space of withaferin A by incorporating silicon to improve its clinical potential on human ovarian carcinoma cells. *J. Med. Chem.* **62**(9), 4571-4585 (2019).

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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