

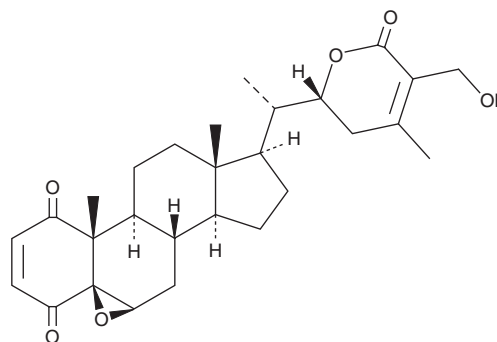
# PRODUCT INFORMATION



## 4-oxo Withaferin A

Item No. 28295

**CAS Registry No.:** 6850-30-2  
**Formal Name:** (5 $\beta$ ,6 $\beta$ ,22R)-5,6-epoxy-22,27-dihydroxy-1,4-dioxo-ergosta-2,24-dien-26-oic acid,  $\delta$ -lactone  
**Synonym:** 4-Dehydrowithaferin A  
**MF:** C<sub>28</sub>H<sub>36</sub>O<sub>6</sub>  
**FW:** 468.6  
**Purity:**  $\geq$ 98%  
**UV/Vis.:**  $\lambda_{\text{max}}$ : 225 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:**  $\geq$ 4 years



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

### Laboratory Procedures

4-oxo Withaferin A is supplied as a crystalline solid. A stock solution may be made by dissolving the 4-oxo withaferin A in the solvent of choice. 4-oxo Withaferin A is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of 4-oxo withaferin A in these solvents is approximately 5 mg/ml.

4-oxo Withaferin A is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 4-oxo withaferin A should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. 4-oxo 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. We do not recommend storing the aqueous solution for more than one day.

### Description

4-oxo Withaferin A is a derivative of the steroidal lactone withaferin A (Item No. 11352) that has anticancer activity.<sup>1</sup> It is cytotoxic to A2780 ovarian cancer cells and carboplatin-resistant A2780 (A2780/CP70) cells (IC<sub>50</sub>s = 7.3 and <1  $\mu$ M, respectively) and is 4.4-fold selective for A2780 cells over non-cancerous ARPE19 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.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 03/18/2024

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
[WWW.CAYMANCHEM.COM](http://WWW.CAYMANCHEM.COM)