

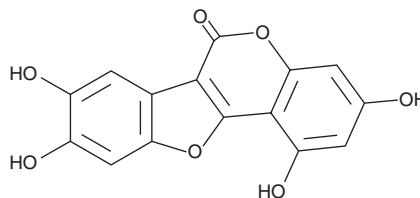
PRODUCT INFORMATION



Demethylwedelolactone

Item No. 11703

CAS Registry No.: 6468-55-9
Formal Name: 1,3,8,9-tetrahydroxy-6H-benzofuro[3,2-c][1]benzopyran-6-one
Synonyms: DWL, Norwedelolactone, 1,3,8,9-Tetrahydroxycoumestan
MF: C₁₅H₈O₇
FW: 300.2
Purity: ≥98%
UV/Vis.: λ_{max}: 211, 250, 304, 354 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Demethylwedelolactone (DWL) is supplied as a crystalline solid. A stock solution may be made by dissolving the DWL in the solvent of choice, which should be purged with an inert gas. DWL is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of DWL in these solvents is approximately 20 mg/ml in ethanol and approximately 30 mg/ml in DMSO and DMF.

DWL is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, DWL should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. DWL 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

DWL is a coumestan, originally isolated from *E. alba*, with diverse biological activities.¹⁻⁴ It reduces cytotoxicity induced by CCL₄ and galactosamine (GalN; Item No. 22981) in rat hepatocytes in a dose-dependent manner.¹ DWL inhibits trypsin with an IC₅₀ value of 3.0 µg/ml *in vitro*.² It is the major constituent in purified butanolic extracts of *E. prostrata* which inhibit lethal and hemorrhagic activities of *C. rhodostoma* venom.³ DWL also inhibits anchorage-independent cell growth of MDA-MB-231 breast cancer cells and decreases the number of lung metastases in an MDA-MB-231 xenograft model in nude mice.⁴

References

1. Wagner, H., Geyer, B., Kiso, Y., *et al.* Coumestans as the main active principles of the liver drugs *Eclipta alba* and *Wedelia calendulacea*. *Planta Med.* **5**, 370-374 (1986).
2. Syed, S.D., Deepak, M., Yogisha, S., *et al.* Trypsin inhibitory effect of wedelolactone and demethylwedelolactone. *Phytother. Res.* **17(4)**, 420-421 (2003).
3. Pithayanukul, P., Laovachirasuwan, S., Bavovada, R., *et al.* Anti-venom potential of butanolic extract of *Eclipta prostrata* against Malayan pit viper venom. *J. Ethnopharmacol.* **90(2-3)**, 347-352 (2004).
4. Lee, Y.-J., Lin, W.-L., Chen, N.-F., *et al.* Demethylwedelolactone derivatives inhibit invasive growth *in vitro* and lung metastasis of MDA-MB-231 breast cancer cells in nude mice. *Eur. J. Med. Chem.* **56(1)**, 631-637 (2012).

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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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