

PRODUCT INFORMATION



Dendrobine

Item No. 26067

CAS Registry No.: 2115-91-5
Formal Name: (2aS,4aS,5R,6S,7R,7aS,7bR)-decahydro-1,7b-dimethyl-6-(1-methylethyl)-7,5-(epoxymethano)-1H-cyclopent[cd]indol-9-one

Synonym: (-)-Dendrobine

MF: C₁₆H₂₅NO₂

FW: 263.4

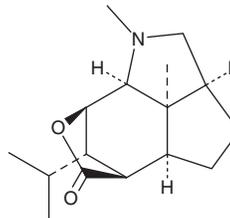
Purity: ≥95%

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥4 years

Item Origin: Plant/*Dendrobium* stem



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

Laboratory Procedures

Dendrobine is supplied as a crystalline solid. A stock solution may be made by dissolving the dendrobine in the solvent of choice, which should be purged with an inert gas. Dendrobine is soluble in methanol.

Description

Dendrobine is a sesquiterpenoid that has been found in *D. nobile* and has anticancer activity.^{1,2} It decreases viability of A549 cells when used at concentrations ranging from 2.5 to 15 µg/ml.² It induces apoptosis in A549 cells when used at concentrations ranging from 1 to 10 µg/ml, as well as increases JNK phosphorylation and sensitizes A549 cells to cisplatin (Item No. 13119) at 10 µg/ml. Dendrobine (50 mg/kg per day) reduces tumor growth in an A549 mouse xenograft model with an additive effect when used in combination with cisplatin.

References

1. Meng, C.-W., He, Y.-L., Peng, C., *et al.* Picrotoxane sesquiterpenoids from the stems of *Dendrobium nobile* and their absolute configurations and angiogenesis effect. *Fitoterapia* **121**, 206-211 (2017).
2. Song, T.-H., Chen, X.-X., Lee, C.K.-F., *et al.* Dendrobine targeting JNK stress signaling to sensitize chemotoxicity of cisplatin against non-small cell lung cancer cells *in vitro* and *in vivo*. *Phytomedicine* **53**, 18-27 (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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