

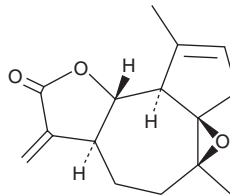
PRODUCT INFORMATION



Arglabin

Item No. 19502

CAS Registry No.: 84692-91-1
Formal Name: (3aR,4aS,6aS,9aS,9bR)-5,6,6a,7,9a,9b-hexahydro-1,4a-dimethyl-7-methylene-3H-oxireno[8,8a]azuleno[4,5-b]furan-8(4aH)-one
MF: C₁₅H₁₈O₃
FW: 246.3
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Artemisia glabella*



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

Laboratory Procedures

Arglabin is supplied as a crystalline solid. A stock solution may be made by dissolving the arglabin in the solvent of choice, which should be purged with an inert gas. Arglabin is soluble in the organic solvent DMSO at a concentration of approximately 30 mg/ml.

Description

Arglabin is a sesquiterpene γ -lactone originally isolated from *A. glabella* that has anticancer and anti-inflammatory activities.¹ It inhibits the growth of LS-180, SSC-4, HeLa, MCF-7, and HL-60 cancer cells (IC₅₀s = 20, 10, 20, 20, and 50 μ M, respectively).² Arglabin reduces tumor growth in an SCC-4 mouse xenograft model when administered at a dose of 40 μ g/g. It is a selective inhibitor of the NLRP3 inflammasome over the NLRP1, AIM2, and NLRC4 inflammasomes when used at a concentration of 50 nM.¹ Arglabin (50 nM) reduces increases in protein levels of NLRP3, caspase-1, IL-1 β , and IL-18 induced by cholesterol crystals in LPS-primed mouse peritoneal macrophages. It decreases plasma levels of IL-1 β , oxidized LDL autoantibodies, total cholesterol, and triglycerides, and reduces the size of atherosclerotic lesions in the aorta of mice fed a high-fat diet when administered at a dose of 2.5 ng/g.

References

1. Abderrazak, A., Couchie, D., Mahmood, D.F.D., *et al.* Anti-inflammatory and antiatherogenic effects of the NLRP3 inflammasome inhibitor arglabin in ApoE₂-Ki mice fed a high-fat diet. *Circulation* **131**(12), 1061-1070 (2015).
2. He, W., Lai, R., Lin, Q., *et al.* Arglabin is a plant sesquiterpene lactone that exerts potent anticancer effects on human oral squamous cancer cells via mitochondrial apoptosis and downregulation of the mTOR/PI3K/Akt signaling pathway to inhibit tumor growth *in vivo*. *J. BUON* **23**(6), 1679-1685 (2018).

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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