

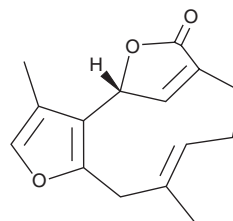
PRODUCT INFORMATION



Linderalactone

Item No. 35641

CAS Registry No.: 728-61-0
Formal Name: (4R,10E)-4,8,9,12-tetrahydro-3,11-dimethyl-6H-4,7-methenofuro[3,2-c]oxacycloundecin-6-one
MF: $C_{15}H_{16}O_3$
FW: 244.3
Purity: $\geq 98\%$
Supplied as: A 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

Linderalactone is supplied as a solid. A stock solution may be made by dissolving the linderalactone in the solvent of choice, which should be purged with an inert gas. Linderalactone is sparingly soluble (1-10 mg/ml) in DMSO.

Description

Linderalactone is a sesquiterpene lactone that has been found in *L. aggregate* and has anticancer and antioxidant activities.¹⁻³ It is an inhibitor of α -glucosidase ($\text{IC}_{50} = 12.72 \mu\text{M}$).¹ Linderalactone inhibits the proliferation of A549 lung cancer cells ($\text{IC}_{50} = 15 \mu\text{M}$).² It also induces apoptosis and cell cycle arrest at the G_2/M phase and reduces the levels of unphosphorylated and phosphorylated JAK1, JAK2, STAT1, and STAT2 in A549 cells in a concentration-dependent manner. Linderalactone reduces hydrogen peroxide-induced increases in cell death in HepG2 cells ($\text{EC}_{50} = 98 \mu\text{M}$).³

References

1. Jani, N.A., Sirat, H.M., Ahmad, F., *et al.* New sesquiterpene dilactone and β -carboline alkaloid and the α -glucosidase inhibitory activity of selected phytochemicals from *Neolitsea cassia* (L.) Kosterm. *Nat. Prod. Res.* **36(16)**, 4061-4069 (2021).
2. Deng, Y. and Ya, L. Linderalactone inhibits human lung cancer growth by modulating the expression of apoptosis-related proteins, G_2/M cell cycle arrest and inhibition of JAK/STAT signalling pathway. *J. BUON* **24(2)**, 566-571 (2019).
3. Gan, L.-S., Zheng, Y.-L., Mo, J.-X., *et al.* Sesquiterpene lactones from the root tubers of *Lindera aggregata*. *J. Nat. Prod.* **72(8)**, 1497-1501 (2009).

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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