

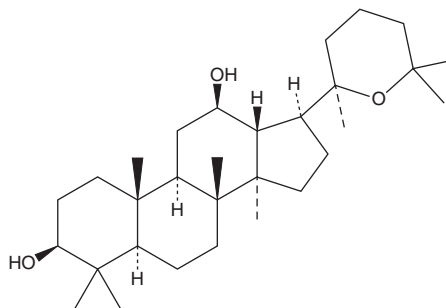
PRODUCT INFORMATION



Panaxadiol

Item No. 33233

CAS Registry No.: 19666-76-3
Formal Name: 20R,25-epoxy-dammarane-3 β ,12 β -diol
Synonyms: NSC 308879, 20(R)-Panaxadiol
MF: C₃₀H₅₂O₃
FW: 460.7
Purity: $\geq$ 98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: $\geq$ 4 years
Item Origin: Plant/*Panax ginseng*



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

Laboratory Procedures

Panaxadiol is supplied as a crystalline solid. A stock solution may be made by dissolving the panaxadiol in the solvent of choice, which should be purged with an inert gas. Panaxadiol is soluble in organic solvents such as ethanol and chloroform. The solubility of panaxadiol in these solvents is approximately 0.25 and 10 mg/ml, respectively.

Description

Panaxadiol is a triterpenoid sapogenin that has been found in *P. ginseng* and has diverse biological activities.¹⁻⁴ It inhibits the growth of HepG2 human hepatoma, A549 lung, MCF-7 breast, and HCT116 colon cancer cells (IC₅₀s = 63.20, 40.88, 61.96, and 92.53 μ M, respectively).¹ Panaxadiol (30 mg/kg) reduces tumor growth in an HCT116 mouse xenograft model.² It inhibits hepatitis B virus (HBV) DNA replication in HepG 2.2.15 cells with an IC₅₀ value of 148.15 μ M.³ Panaxadiol (50 mg/kg) also decreases the escape latency in the Morris water maze (MWM) in an APP/PS1 mouse model of Alzheimer's disease.⁴

References

1. Xiao, S., Lin, Z., Wang, X., et al. Synthesis and cytotoxicity evaluation of panaxadiol derivatives. *Chem. Biodivers.* **17**(1), e1900516 (2020).
2. Wang, Z., Li, M.Y., Zhang, Z.H., et al. Panaxadiol inhibits programmed cell death-ligand 1 expression and tumour proliferation via hypoxia-inducible factor (HIF)-1 α and STAT3 in human colon cancer cells. *Pharmacol. Res.* **155**, 104727 (2020).
3. Chen, H., Wang, L.-J., Ma, Y.-B., et al. Panaxadiol and panaxatriol derivatives as anti-hepatitis B virus inhibitors. *Nat. Prod. Bioprospect.* **4**(3), 163-174 (2014).
4. Liang, X., Yao, Y., Lin, Y., et al. Panaxadiol inhibits synaptic dysfunction in Alzheimer's disease and targets the Fyn protein in APP/PS1 mice and APP-SH-SY5Y cells. *Life Sci.* **221**, 35-46 (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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