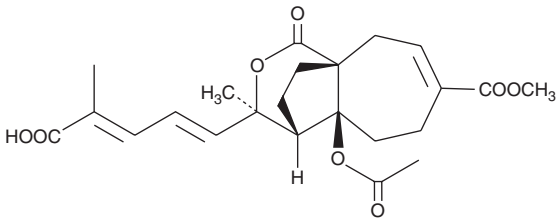
PRODUCT INFORMATION

Pseudolaric Acid B

Item No. 13527

CAS Registry No.: 82508-31-4
Formal Name: (3R,4S,4aS,9aR)-4a-(acetyloxy)-3-[(1E,3E)-4-carboxy-1,3-pentadien-1-yl]-3,4,4a,5,6,9-hexahydro-3-methyl-1-oxo-1H-4,9a-ethanocyclohepta[c]pyran-7-carboxylic acid, 7-methyl ester
Synonyms: NSC 615488, PAB
MF: $C_{23}H_{28}O_8$
FW: 432.5
Purity: ≥98%
UV/Vis.: λ_{max}: 258 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Pseudolarix amabilis* (J. Nelson) Rehd.



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

Laboratory Procedures

Pseudolaric acid B (PAB) is supplied as a crystalline solid. A stock solution may be made by dissolving the PAB in the solvent of choice, which should be purged with an inert gas. PAB is soluble in organic solvents such as ethanol, DMSO, and chloroform. The solubility of PAB in these solvents is approximately 10 mg/ml.

Description

PAB is a diterpene acid isolated from the bark of *P. kaempferi*, a traditional Chinese medicinal plant. It has reported antifungal activities, consistent with its traditional use in the treatment of dermatological fungal infections.[1] Moreover, PAB has diverse effects that are relevant to cancer therapy, including inducing apoptosis of cancer cells (IC_{50} = ~1 µM), preventing angiogenesis, and inhibiting tumor growth *in vivo*.[2-4]

References

1. Li, E., Clark, A.M., and Hufford, C.D. Antifungal evaluation of pseudolaric acid B, a major constituent of *Pseudolarix kaempferi*. *J. Nat. Prod.* **58(1)**, 57-67 (1995).
2. Gong, X., Wang, M., Tashiro, S.i., *et al.* Involvement of JNK-initiated p53 accumulation and phosphorylation of p53 in pseudolaric acid B induced cell death. *Exp. Mol. Med.* **38(4)**, 428-434 (2006).
3. Wong, V.K.W., Chiu, P., Chung, S.S.M., *et al.*Pseudolaric acid B, a novel microtubule-destabilizing agent that circumvents multidrug resistance phenotype and exhibits antitumor activity *in vivo*. *Clin. Cancer Res.* **11(16)**, 6002-6011 (2005).
4. Li, M.H., Miao, Z.H., Tan, W.F., *et al.* Pseudolaric acid B inhibits angiogenesis and reduces hypoxia-inducible factor 1α by promoting proteasome-mediated degradation. *Clin. Cancer Res.* **10(24)**, 8266-8274 (2004).

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