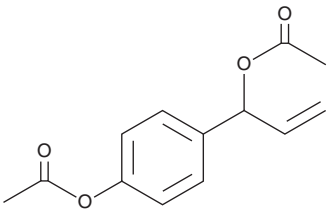
PRODUCT INFORMATION

D,L-1′-Acetoxychavicol Acetate

Item No. 19649

CAS Registry No.: 53890-21-4
Formal Name: 4-(acetyloxy)-α-ethenyl-benzenemethanol, acetate
Synonyms: ACA, 1′-Acetoxychavicol Acetate, Galangal Acetate
MF: $C_{13}H_{14}O_4$
FW: 234.3
Purity: ≥95%
UV/Vis.: λ_{max}: 218 nm
Supplied as: A crystalline 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

D,L-1′-Acetoxychavicol acetate is supplied as a crystalline solid. A stock solution may be made by dissolving the D,L-1′-acetoxychavicol acetate in the solvent of choice. D,L-1′-Acetoxychavicol acetate is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of D,L-1′-acetoxychavicol acetate in these solvents is approximately 20 mg/ml in ethanol and DMSO and 14 mg/ml in DMF.

D,L-1′-Acetoxychavicol acetate is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, D,L-1′-acetoxychavicol acetate should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. D,L-1′-Acetoxychavicol acetate has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

D,L-1′-Acetoxychavicol acetate is a natural compound first isolated from the rhizomes of ginger-like plants. It has a wide array of cellular effects that may be largely explained by its ability to inhibit exportin 1 and prevent the export of proteins from the nucleus.[1,2] In this way, D,L-1′-Acetoxychavicol acetate reduces several intracellular signaling pathways, including NF-κB, impacting inflammation, cancer, viral replication, and other processes.[2-4]

References

1. Tamura, S., Shiomi, A., Kaneko, M., *et al.* New rev-export inhibitor from *Alpinia galanga* and structure-activity relationship. *Bioorg. Med. Chem. Lett.* **19(9)**, 2555-2557 (2009).
2. Turner, J.G., Dawson, J., and Sullivan, D.M. Nuclear export of proteins and drug resistance in cancer. *Biochem. Pharmacol.* **83(8)**, 1021-1032 (2012).
3. Murakami, A. and Ohigashi, H. Targeting NOX, INOS and COX-2 in inflammatory cells: Chemoprevention using food phytochemicals. *Int. J. Cancer* **121(11)**, 2357-2363 (2007).
4. Watanabe, K., Takatsuki, H., Sonoda, M., *et al.* Anti-influenza viral effects of novel nuclear export inhibitors from *Valerianae radix* and *Alpinia galanga*. *Drug Discov. Ther.* **5(1)**, 26-31 (2016).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM