# PRODUCT INFORMATION

## Dendrophenol

*Item No. 42115*

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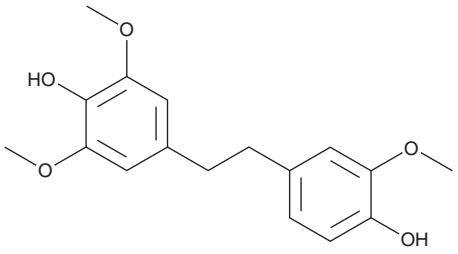
| **CAS Registry No.:** | 108853-14-1 |
| **Formal Name:** | 4-[2-(4-hydroxy-3-methoxyphenyl) ethyl]-2,6-dimethoxy-phenol |
| **Synonyms:** | Aloifol II, Moscatilin |
| **MF:** | $C_{17}H_{20}O_5$ |
| **FW:** | 304.3 |
| **Purity:** | ≥98% |
| **Supplied as:** | A solid |
| **Storage:** | -20°C |
| **Stability:** | ≥4 years |
| **Item Origin:** | Plant/*Dendrobium moniliforme* (L.) Sw. |




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

### Laboratory Procedures

Dendrophenol is supplied as a solid. A stock solution may be made by dissolving the dendrophenol in the solvent of choice, which should be purged with an inert gas. Dendrophenol is soluble (≥10 mg/ml) in ethanol and DMSO.

### Description

Dendrophenol is a polyphenol that has been found in *D. nobile* and has diverse biological activities.[1-3] It decreases viability of, and induces cell cycle arrest at the S phase in, HCT116 colorectal cancer cells when used at a concentration of 10 µM.[1] Dendrophenol (3 or 10 µM) inhibits the migration of MDA-MB-231 breast cancer cells.[2] It inhibits LPS-induced increases in inducible nitric oxide synthase (iNOS), COX-2, hypoxia-inducible factor-1α (HIF-1α), and NF-κB levels and NF-κB nuclear translocation in RAW 264.7 macrophages when used at a concentration of 100 µM.[3] Dendrophenol (50 or 100 mg/kg per day) reduces tumor size without affecting body weight in an HCT116 mouse xenograft model.[1] It decreases total lung weight in an MDA-MB-231 mouse xenograft model when administered at a dose of 100 mg/kg per day.[2]

### References


1. Chen, T.-H., Pan, S.-L., Guh, J.-H., *et al.* Moscatilin induces apoptosis in human colorectal cancer cells: A crucial role of c-Jun NH2-terminal protein kinase activation caused by tubulin depolymerization and DNA damage. *Clin. Cancer Res.* **14(13)**, 4250-4258 (2008).
2. Pai, H.-C., Chang, L.-H., Peng, C.-Y., *et al.* Moscatilin inhibits migration and metastasis of human breast cancer MDA-MB-231 cells through inhibition of Akt and Twist signaling pathway. *J. Mol. Med. (Berl)* **91(3)**, 347-356 (2013).
3. Liu, Y.-N., Pan, S.-L., Peng, C.-Y., *et al.* Moscatilin repressed lipopolysaccharide-induced HIF-1α accumulation and NF-κB activation in murine RAW264.7 cells. *Shock* **33(1)**, 70-75 (2010).





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