

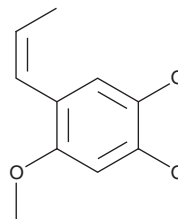
PRODUCT INFORMATION



β-Asarone

Item No. 11682

CAS Registry No.: 5273-86-9
Formal Name: 1,2,4-trimethoxy-5-(1Z)-1-propen-1-yl-benzene
Synonym: cis-Asarone
MF: C₁₂H₁₆O₃
FW: 208.3
Purity: ≥98%
UV/Vis.: λ_{max}: 209, 253, 303 nm
Supplied as: A solution in ethanol
Storage: -20°C
Stability: ≥2 years
Item Origin: Plant/*Acorus tatarinowii* Schott



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

Laboratory Procedures

β-Asarone is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide (DMF) purged with an inert gas can be used. The solubility of β-asarone in these solvents is approximately 10 and 15 mg/ml, respectively.

β-Asarone is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of β-asarone should be diluted with the aqueous buffer of choice. β-Asarone has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method.

Description

The asarones, including α-asarone (Item No. 11681) and β-asarone, were first isolated from volatile oils of plants of the genus *Acorus*, which are used in Ayurvedic medicine. β-Asarone is noted for its neuroprotective effects, as it ameliorates depression, reduces dopamine-induced neurotoxicity, and attenuates damage in a model of stroke.¹⁻³ In isolated neurons and in brains, β-asarone blocks autophagy, reduces inflammation, and inhibits apoptosis.²⁻⁴ While β-asarone inhibits apoptosis in neurons, it induces apoptosis in colon cancer cells.⁵ It also has antimicrobial effects.⁶

References

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2. Zhang, S., Gui, X.-H., Huang, L.-P., et al. Neuroprotective effects of β-asarone against 6-hydroxy dopamine-induced parkinsonism via JNK/Bcl-2/Beclin-1 Pathway. *Mol. Neurobiol.* **53**(1), 83-94 (2014).
3. Yang, Y.X., Chen, Y.T., Zhou, X.J., et al. Beta-asarone, a major component of *Acorus tatarinowii* Schott, attenuates focal cerebral ischemia induced by middle cerebral artery occlusion in rats. *BMC Complement. Altern. Med.* **13**, (2013).
4. Wei, G., Chen, Y.B., Chen, D.F., et al. β-Asarone inhibits neuronal apoptosis via the CaMKII/CREB/Bcl-2 signaling pathway in an *in vitro* model and AβPP/PS1 mice. *J. Alzheimers Dis.* **33**(3), 863-880 (2013).
5. Zou, X., Liu, S.L., Zhou, J.Y., et al. β-Asarone induces LoVo colon cancer cell apoptosis by up-regulation of caspases through a mitochondrial pathway *in vitro* and *in vivo*. *Asian Pac. J. Cancer Prev.* **13**(10), 5291-5298 (2012).
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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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