# PRODUCT INFORMATION



# α-Asarone

Item No. 11681

CAS Registry No.: 2883-98-9

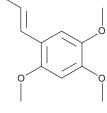
Formal Name: 1,2,4-trimethoxy-5-(1E)-1-propen-1-yl-benzene

Synonym: trans-Asarone MF:  $C_{12}H_{16}O_3$ FW: 208.3 **Purity:** ≥98%

 $\lambda_{max}$ : 212, 258, 313 nm A crystalline solid UV/Vis.: Supplied as:

Storage: -20°C Stability: ≥4 years

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



## **Laboratory Procedures**

 $\alpha$ -Asarone is supplied as a crystalline solid. A stock solution may be made by dissolving the  $\alpha$ -asarone in the solvent of choice, which should be purged with an inert gas. α-Asarone is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of  $\alpha$ -asarone in these solvents is approximately 14, 11, and 16 mg/ml, respectively.

α-Asarone is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, α-asarone should first be dissolved in DMSO and then diluted with the aqueous buffer of choice.  $\alpha$ -Asarone has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

α-Asarone is a component of certain essential oils used in traditional Chinese herbal medicine. Although carcinogenic, α-asarone has been shown to be neuroprotective and radioprotective in mice when given at 50 mg/kg.<sup>1-3</sup> It also lowers serum cholesterol in rats, specifically reducing LDL-cholesterol levels and cholesterol saturation index, by directly inhibiting HMG-CoA reductase (IC $_{50}$  = 3 mM). $^{4,5}$   $\alpha$ -Asarone also directly interacts with and inhibits certain isoforms of cytochrome P450 (IC $_{50}$  = 55.2 and 65.2  $\mu$ g/ml for CYP2D6 and CYP3A4, respectively).6

# References

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- 3. Zuo, H.L., Yang, F.Q., Zhang, X.M., et al. J. Anal. Methods Chem. 2012, 1-5 (2012).
- 4. Rodríguez-Páez, L., Juárez-Sanchez, M., Antúnez-Solís, J., et al. Phytomedicine 10(5), 397-404 (2003).
- Antunez-Solis, J., Hernández-Derramadero, F., Aquino-Vega, M., et al. J. Enzyme Inhib. Med. Chem. 24(3), 903-909 (2009).
- 6. Pandit, S., Mukherjee, P.K., Ponnusankar, S., et al. Fitoterapia 82(3), 369-374 (2011).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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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