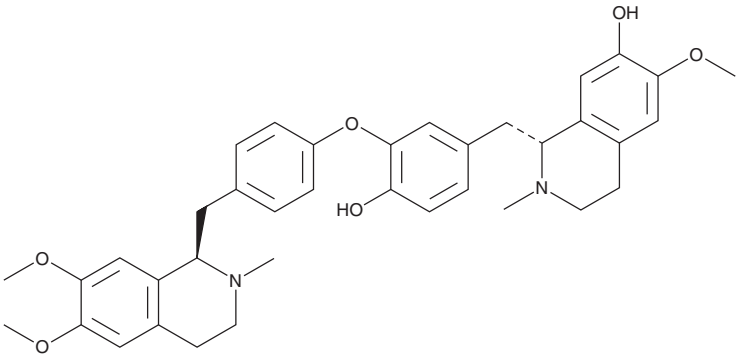
PRODUCT INFORMATION

Daurisoline

Item No. 29628



CAS Registry No.:	70553-76-3
Formal Name:	(1R)-1,2,3,4-tetrahydro-1-[[4-hydroxy-3-[4-[[(1R)-1,2,3,4-tetrahydro-6,7-dimethoxy-2-methyl-1-isoquinolinyl]methyl]phenoxy]phenyl]methyl]-6-methoxy-2-methyl-7-isoquinolinol
Synonyms:	(–)-Daurisoline, (R,R)-Daurisoline
MF:	$C_{37}H_{42}N_2O_6$
FW:	610.7
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Plant/*Rhizoma menispermi*

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

Laboratory Procedures

Daurisoline is supplied as a solid. A stock solution may be made by dissolving the daurisoline in the solvent of choice, which should be purged with an inert gas. Daurisoline is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of daurisoline in ethanol is approximately 2 mg/ml and approximately 10 mg/ml in DMSO and DMF.

Daurisoline is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, daurisoline should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Daurisoline has a solubility of approximately 0.09 mg/ml in a 1:10 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Daurisoline is an alkaloid that has been found in *M. dauricum* and has diverse biological activities.[1-3] It enhances cytotoxicity induced by camptothecin (Item No. 11694) in HeLa cells when used at a concentration of 10 µM.[1] Daurisoline inhibits camptothecin-induced autophagy in HeLa, A549, and HCT116 cells (IC_{50}s = 74.75, 50.54, and 80.81 µM, respectively). It inhibits ADP-induced aggregation of platelets in isolated rabbit whole blood (IC_{50} = 100 µM).[2] Daurisoline prolongs action potential duration (APD) and reduces early afterdepolarizations (EADs) in papillary muscle preparations isolated from hypertrophied rabbit hearts when used at a concentration of 15 µM.[3]

References

1. Wu, M.-Y., Wang, S.-F., Cai, C.-Z., *et al.* Natural autophagy blockers, dauricine (DAC) and daurisoline (DAS), sensitize cancer cells to camptothecin-induced toxicity. *Oncotarget* **8(44)**, 77673-77684 (2017).
2. Hu, S.-M., Xu, S.-X., Yao, X.-S., *et al.* Dauricoside, a new glycosidal alkaloid having an inhibitory activity against blood-platelet aggregation. *Chem. Pharm. Bull. (Tokyo)* **41(10)**, 1866-1868 (1993).
3. Liu, Q.-N., Zhang, L., Gong, P.-L., *et al.* Daurisoline suppressed early afterdepolarizations and inhibited L-type calcium current. *Am. J. Chin. Med.* **38(1)**, 37-49 (2010).

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