

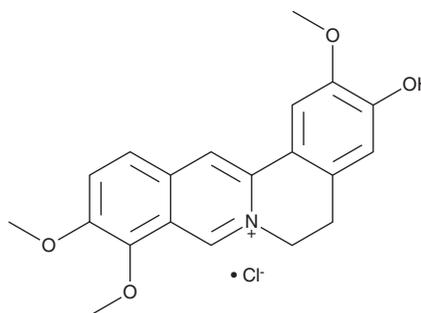
PRODUCT INFORMATION



Jatrorrhizine (chloride)

Item No. 27314

CAS Registry No.: 6681-15-8
Formal Name: 5,6-dihydro-3-hydroxy-2,9,10-trimethoxy-dibenzo[a,g]quinolizinium, monochloride
Synonym: NSC 645313
MF: C₂₀H₂₀NO₄ • Cl
FW: 373.8
Purity: ≥98%
UV/Vis.: λ_{max}: 227, 266, 351, 437 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/Mahoniae Caulis



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

Laboratory Procedures

Jatrorrhizine (chloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the jatrorrhizine (chloride) in the solvent of choice, which should be purged with an inert gas. Jatrorrhizine (chloride) is soluble in the organic solvent dimethyl formamide at a concentration of approximately 0.1 mg/ml.

Description

Jatrorrhizine is an alkaloid that has been found in the Chinese herb *C. chinensis* and has diverse biological activities.¹⁻⁴ It is active against *P. falciparum* (IC₅₀s = 422 and 1,607 ng/ml for D-6 and W-2 clones, respectively) and *E. histolytica* (IC₅₀ = 82.7 μM).^{1,2} Jatrorrhizine inhibits the growth of C8161 human melanoma cells *in vitro* (IC₅₀ = 47.4 μM) and inhibits C8161 cell-mediated neovascularization in a Matrigel™ plug assay in mice when administered at a dose of 50 μg/animal.³ It reduces serum levels of triglycerides, LDL cholesterol (LDL-C), aspartate transaminase (AST), and alanine aminotransferase (ALT) in a high-fat diet-induced mouse model of hyperlipidemia when administered at doses of 20 and 100 mg/kg.⁴ Jatrorrhizine is also a metabolite of berberine (Item No. 10006427).⁵

References

1. Vennerstrom, J.L. and Klayman, D.L. Protoberberine alkaloids as antimalarials. *J. Med. Chem.* **31**(6), 1084-1087 (1988).
2. Wright, C.W., Marshall, S.J., Russell, P.F., *et al.* In vitro antiplasmodial, antiamoebic, and cytotoxic activities of some monomeric isoquinoline alkaloids. *J. Nat. Prod.* **63**(12), 1638-1640 (2000).
3. Liu, R., Cao, Z., Pan, Y., *et al.* Jatrorrhizine hydrochloride inhibits the proliferation and neovascularization of C8161 metastatic melanoma cells. *Anticancer Drugs* **24**(7), 667-676 (2013).
4. Yang, W., She, L., Yu, K., *et al.* Jatrorrhizine hydrochloride attenuates hyperlipidemia in a high-fat diet-induced obesity mouse model. *Mol. Med. Rep.* **14**(4), 3277-3284 (2016).
5. Zuo, F., Nakamura, N., Akao, T., *et al.* Pharmacokinetics of berberine and its main metabolites in conventional and pseudo germ-free rats determined by liquid chromatography/ion trap mass spectrometry. *Drug Metab. Dispos.* **34**(12), 2064-2072 (2006).

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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