

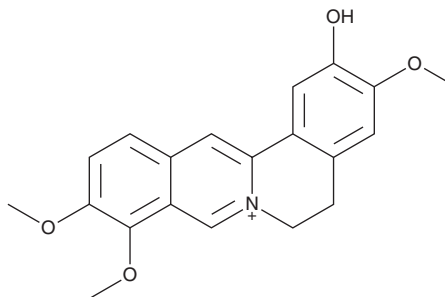
PRODUCT INFORMATION



Columbamine

Item No. 35032

CAS Registry No.: 3621-36-1
Formal Name: 5,6-dihydro-2-hydroxy-3,9,10-trimethoxy-dibenzo[a,g]quinolizinium
Synonym: Dehydroisocorypalmine
MF: C₂₀H₂₀NO₄
FW: 338.4
Purity: ≥95%
UV/Vis.: λ_{max}: 230, 266, 351 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Coptis chinensis*



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

Laboratory Procedures

Columbamine is supplied as a solid. A stock solution may be made by dissolving the columbamine in the solvent of choice, which should be purged with an inert gas. Columbamine is soluble in the organic solvent DMSO.

Description

Columbamine is an alkaloid that has been found in *Plumeria rubra* and has diverse biological activities.¹⁻⁵ It is also a metabolite of berberine (Item No. 10006427).⁴ Columbamine inhibits the cytochrome P450 (CYP) isoform CYP3A4 (IC₅₀ = 30.6 μM).³ It is active against *P. falciparum* (IC₅₀ = 1.92 μM).¹ It decreases glucose consumption of, and triglyceride levels in, HepG2 cells when used at concentrations of 3 and 15 μM, respectively.^{2,4} Columbamine (56 mg/kg) reduces xylene-induced ear edema and acetic acid-induced writhing in mice.⁵

References

1. Wright, C.W., Marshall, S.J., Russell, P.F., *et al.* In vitro antiplasmodial, antiamebic, and cytotoxic activities of some monomeric isoquinoline alkaloids. *J. Nat. Prod.* **63**(12), 1638-1640 (2000).
2. Chen, H.-Y., Ye, X.-L., Cui, X.-L., *et al.* Cytotoxicity and antihyperglycemic effect of minor constituents from *Rhizoma Coptis* in HepG2 cells. *Fitoterapia* **83**(1), 67-73 (2012).
3. Su, C.-R., Ueng, Y.-F., Dung, N.X., *et al.* Cytochrome P3A4 inhibitors and other constituents of *Fibraurea tinctoria*. *J. Nat. Prod.* **70**(12), 1930-1933 (2007).
4. Cao, S., Zhou, Y., Xu, P., *et al.* Berberine metabolites exhibit triglyceride-lowering effects via activation of AMP-activated protein kinase in Hep G2 cells. *J. Ethnopharmacol.* **149**(2), 576-582 (2013).
5. Liu, X., Hu, Z., Shi, Q., *et al.* Anti-inflammatory and anti-nociceptive activities of compounds from *Tinospora sagittata* (Oliv.) Gagnep. *Arch. Pharm. Res.* **33**(7), 981-987 (2010).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM