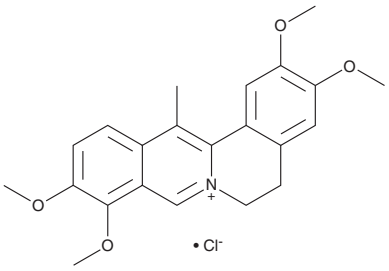
PRODUCT INFORMATION

Dehydrocorydaline (chloride)

Item No. 30972

CAS Registry No.:	10605-03-5
Formal Name:	5,6-dihydro-2,3,9,10-tetramethoxy-13-methyl-dibenzo[a,g] quinolizinium, monochloride
MF:	$C_{22}H_{24}NO_4 \bullet Cl$
FW:	401.9
Purity:	≥95%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Plant/*Corydalis yanhusuo*



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

Laboratory Procedures

Dehydrocorydaline (chloride) is supplied as a solid. A stock solution may be made by dissolving the dehydrocorydaline (chloride) in the solvent of choice, which should be purged with an inert gas. Dehydrocorydaline (chloride) is soluble in the organic solvent DMSO at a concentration of approximately 20 mg/ml.

Description

Dehydrocorydaline is an alkaloid that has been found in *C. yanhusuo* and has diverse biological activities.[1-4] Dehydrocorydaline inhibits serotonin (5-HT; Item No. 14332) reuptake by organic cation transporter 2 (OCT2) and dopamine reuptake by OCT3 (IC_{50}s = 0.137 and 0.354 µM, respectively, for human recombinant transporters), as well as reduces dopamine, 5-HT, and norepinephrine reuptake in mouse brain synaptosomes.[2] *In vivo*, dehydrocorydaline (1.5 and 3 mg/kg) decreases immobility time in the forced swim test in a mouse model of depression induced by chronic unpredictable mild stress. Dehydrocorydaline (10 mg/kg) reduces acetic acid-induced writhing in mice and increases the mechanical paw withdrawal threshold in a mouse model of bone cancer pain.[3,4]

References

1. Iwasa, K., Moriyasu, M., and Nader, B. Fungicidal and herbicidal activities of berberine related alkaloids. *Biosci. Biotechnol. Biochem.* **64(9)**, 1998-2000 (2000).
2. Jin, L., Zhou, S., Zhu, S., *et al.* Dehydrocorydaline induced antidepressant-like effect in a chronic unpredictable mild stress mouse model via inhibiting uptake-2 monoamine transporters. *Eur. J. Pharmacol.* **864**, 172725 (2019).
3. Yin, Z.-Y., Li, L., Chu, S.-S., *et al.* Antinociceptive effects of dehydrocorydaline in mouse models of inflammatory pain involve the opioid receptor and inflammatory cytokines. *Sci. Rep.* **6**, 27129 (2016).
4. Huo, W., Zhang, Y., Liu, Y., *et al.* Dehydrocorydaline attenuates bone cancer pain by shifting microglial M1/M2 polarization toward the M2 phenotype. *Mol. Pain* **14**, 1744806918781733 (2018).

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