

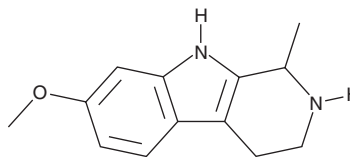
PRODUCT INFORMATION



Tetrahydroharmine

Item No. 14449

CAS Registry No.: 17019-01-1
Formal Name: 2,3,4,9-tetrahydro-7-methoxy-1-methyl-1H-pyrido[3,4-b]indole
Synonyms: Leptaflorine, THH
MF: C₁₃H₁₆N₂O
FW: 216.3
Purity: ≥98%
UV/Vis.: λ_{max}: 228, 271, 299 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Tetrahydroharmine (THH) is supplied as a crystalline solid. A stock solution may be made by dissolving the THH in the solvent of choice, which should be purged with an inert gas. THH is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of THH in ethanol and DMF is approximately 1.5 mg/ml and approximately 2 mg/ml in DMSO.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of THH can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of THH in PBS (pH 7.2) is approximately 0.25 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

THH is a fluorescent indole alkaloid extracted from *B. caapi*, a woody vine that is used to produce a psychoactive beverage, ayahuasca, which has been ritually ingested for medicoreligious purposes throughout South America since pre-Columbian times.¹ THH inhibits monoamine oxidase (MAO)-A and MAO-B with much weaker potency (IC₅₀s = 74 nM and >100 μM, respectively) compared to the companion harmala alkaloids also found in *B. caapi*: harmaline (Item No. 10995; IC₅₀s = 2.5 nM and 25 μM, respectively) and harmine (Item No. 10010324; IC₅₀s = 2 nM and 20 μM, respectively).^{2,3}

References

1. Callaway, J.C., Raymon, L.P., Hearn, W.L., et al. Quantitation of N,N-dimethyltryptamine and harmala alkaloids in human plasma after oral dosing with Ayahuasca. *J. Anal. Toxicol.* **20(6)**, 492-497 (1996).
2. Samoylenko, V., Rahman, M.M., Tekwani, B.L., et al. *Banisteriopsis caapi*, a unique combination of MAO inhibitory and antioxidative constituents for the activities relevant to neurodegenerative disorders and Parkinson's disease. *J. Ethnopharmacol.* **127(2)**, 357-367 (2010).
3. Wang, Y.H., Samoylenko, V., Tekwani, B.L., et al. Composition, standardization and chemical profiling of *Banisteriopsis caapi*, a plant for the treatment of neurodegenerative disorders relevant to Parkinson's disease. *J. Ethnopharmacol.* **128(3)**, 661-671 (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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/16/2022

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