

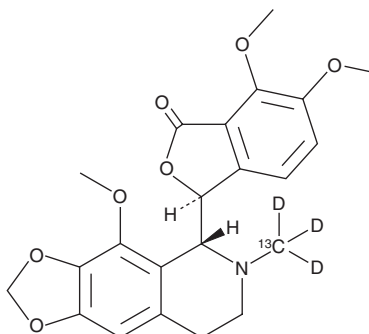
PRODUCT INFORMATION



Noscapine-¹³C-d₃

Item No. 26679

CAS Registry No.: 1217680-57-3
Formal Name: (3S)-6,7-dimethoxy-3-[(5R)-5,6,7,8-tetrahydro-4-methoxy-6-methyl-¹³C-d₃-1,3-dioxolo[4,5-g]isoquinolin-5-yl]-1(3H)-isobenzofuranone
Synonyms: Narcotine-¹³C-d₃, Opianine-¹³C-d₃
MF: C₂₁[¹³C]H₂₀D₃NO₇
FW: 417.4
Chemical Purity: ≥98% (Noscapine)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₃); ≤1% d₀
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Synthetic



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

Laboratory Procedures

Noscapine-¹³C-d₃ is intended for use as an internal standard for the quantification of Noscapine (Item No. 17255) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Noscapine-¹³C-d₃ is supplied as a solid. A stock solution may be made by dissolving the noscapine-¹³C-d₃ in the solvent of choice, which should be purged with an inert gas. Noscapine-¹³C-d₃ is soluble in DMSO.

Description

Noscapine is an alkaloid that has been found in opium and has anticancer and antitussive properties.¹⁻³ It binds to tubulin and induces cell cycle arrest at the G₂/M phase in HeLa cells when used at a concentration of 20 μM.² Noscapine induces apoptosis in HeLa cells and thymocytes (IC₅₀s = 25 and 10 μM, respectively) and reduces proliferation of MCF-7 breast and Renal 1983 bladder cancer cells (IC₅₀s = 42.3 and 39.1 μM, respectively). *In vivo*, noscapine (120 mg/kg) induces tumor regression in an MCF-7 mouse xenograft model. Noscapine (30 and 70 mg/kg) decreases the number of citric acid-induced coughs in guinea pigs.³

References

1. Kingston, D.G.I. Tubulin-interactive natural products as anticancer agents. *J. Nat. Prod.* **72**(3), 507-515 (2009).
2. Ye, K., Ke, Y., Keshava, N., *et al.* Opium alkaloid noscapine is an antitumor agent that arrests metaphase and induces apoptosis in dividing cells. *Proc. Nat. Acad. Sci. U.S.A.* **95**(4), 1601-1606 (1998).
3. Idaan-Heikkila, J.E., Jalonen, K., and Vartiainen, A. Evaluation of the antitussive effect of noscapine and codeine on citric acid cough in guinea-pigs. *Acta. Pharmacol. Toxicol. (Copenh)* **25**(3), 333-338 (1967).

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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