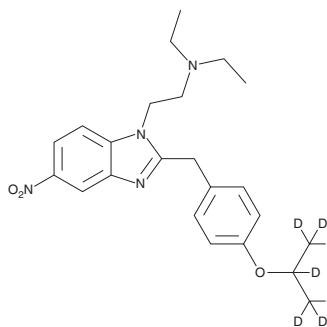


PRODUCT INFORMATION



Isotonitazene-d₇ Item No. 29319

Formal Name:	N,N-diethyl-2-(5-nitro-2-(4-((propan-2-yl-d ₇)oxy)benzyl)-1H-benzo[d]imidazol-1-yl)ethan-1-amine
MF:	C ₂₃ H ₂₃ D ₇ N ₄ O ₃
FW:	417.6
Chemical Purity:	≥98% (Isotonitazene)
Deuterium Incorporation:	≥99% deuterated forms (d ₁ -d ₇); ≤1% d ₀
UV/Vis.:	λ _{max} : 242, 310 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥5 years



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

Description

Isotonitazene-d₇ (Item No. 29319) is intended for use as an internal standard for the quantification of isotonitazene (Item Nos. 30880 | 27255) 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).

Isotonitazene is categorized as an opioid.¹⁻³ Isotonitazene has analgesic effects in mice.⁴ It has been associated with overdoses.⁵ Isotonitazene is regulated as a Schedule I compound in the United States. This product is intended for research and forensic applications.

References

1. Casy, A.F. and Wright, J. Ionisation constants and partition coefficients of some analgesically active 2-benzylbenzimidazole derivatives and related compounds. *J. Pharm. Pharmacol.* **18(10)**, 677-683 (1966).
2. Blanckaert, P., Cannaert, A., Van Uytfanghe, K., *et al.* Report on a novel emerging class of highly potent benzimidazole NPS opioids: Chemical and *in vitro* functional characterization of isotonitazene. *Drug Test. Anal.* **12(4)**, 422-430 (2019).
3. Vandeputte, M.M., Van Uytfanghe, K., Layle, N.K., *et al.* Synthesis, chemical characterization, and μ -opioid receptor activity assessment of the emerging group of "nitazene" 2-benzylbenzimidazole synthetic opioids. *ACS Chem. Neurosci.* **12(7)**, 1241-1251 (2021).
4. Ujváry, I., Christie, R., Evans-Brown, M., *et al.* DARK classics in chemical neuroscience: Etonitazene and related benzimidazoles. *ACS Chem. Neurosci.* **12(7)**, 1072-1092 (2021).
5. Shover, C.L., Falasinnu, T.O., Freedman, R.B., *et al.* Emerging characteristics of isotonitazene-involved overdose deaths: A case-control study. *J. Addict. Med.* **15(5)**, 429-431 (2021).

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.

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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