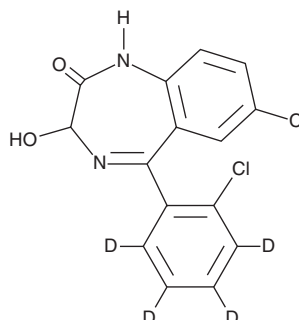


PRODUCT INFORMATION



Lorazepam-d₄ Item No. 40658

CAS Registry No.: 84344-15-0
Formal Name: 7-chloro-5-(6-chlorophenyl-2,3,4,5-d₄)-1,3-dihydro-3-hydroxy-2H-1,4-benzodiazepin-2-one
Synonym: Apo-Lorazepam-d₄
MF: C₁₅H₆Cl₂D₄N₂O₂
FW: 325.2
Chemical Purity: ≥98% (Lorazepam)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₄); ≤1% d₀
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Description

Lorazepam-d₄ (Item No. 40658) is intended for use as an internal standard for the quantification of lorazepam (Item Nos. ISO60202 | 15891) 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).

Lorazepam is categorized as a benzodiazepine.^{1,2} It has anxiolytic properties and is a metabolite of diclazepam (Item Nos. 28623 | 15554).^{2,3} Formulations containing lorazepam have been used in the treatment of anxiety. Lorazepam-d₄ is regulated as a Schedule IV compound in the United States. This product is intended for research and forensic applications.

References

1. Miller, L.G., Greenblatt, D.J., Barnhill, J.G., *et al.* Chronic benzodiazepine administration. I. Tolerance is associated with benzodiazepine receptor downregulation and decreased γ -aminobutyric acid_A receptor function. *J. Pharmacol. Exp. Ther.* **246**(1), 170-176 (1988).
2. Baldwin, D., Woods, R., Lawson, R., *et al.* Efficacy of drug treatments for generalised anxiety disorder: Systematic review and meta-analysis. *BMJ* **342**, d1199 (2011).
3. Moosmann, B., Bisel, P., and Auwärter, V. Characterization of the designer benzodiazepine diclazepam and preliminary data on its metabolism and pharmacokinetics. *Drug Test Anal.* **6**(7-8), 757-763 (2014).

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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