

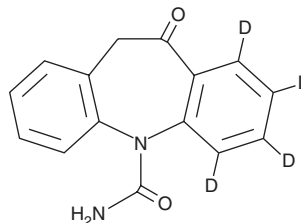
PRODUCT INFORMATION



Oxcarbazepine-d₄

Item No. 29995

CAS Registry No.: 1134188-71-8
Formal Name: 10,11-dihydro-11-oxo-5H-dibenz[b,f]azepine-1,2,3,4-d₄-5-carboxamide
MF: C₁₅H₈D₄N₂O₂
FW: 256.3
Chemical Purity: ≥98% (Oxcarbazepine)
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.

Laboratory Procedures

Oxcarbazepine-d₄ is intended for use as an internal standard for the quantification of oxcarbazepine (Item No. 17340) 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).

Oxcarbazepine-d₄ is supplied as a solid. A stock solution may be made by dissolving the oxcarbazepine-d₄ in the solvent of choice, which should be purged with an inert gas. Oxcarbazepine-d₄ is soluble in the organic solvent DMSO.

Description

Oxcarbazepine is a prodrug form of the antiepileptic compound 10,11-dihydro-10-hydroxy carbamazepine (Item No. 18467).^{1,2} It inhibits high-frequency repetitive firing of rat spinal cord neurons when used at a concentration of 1 μM.² Oxcarbazepine protects against electroshock-induced tonic hindlimb extension (ED₅₀s = 10-20 mg/kg), as well as seizures induced by pentylenetetrazole (PTZ; Item No. 18682) or picrotoxin (Item No. 20771) in rodents (ED₅₀s = 23-30 and 150-250 mg/kg, respectively). Formulations containing oxcarbazepine have been used in the treatment of epileptic seizures.

References

1. Ambrósio, A.F., Soares-Da-Silva, P., Carvalho, C.M., *et al.* Mechanisms of action of carbamazepine and its derivatives, oxcarbazepine, BIA 2-093, and BIA 2-024. *Neurochem. Res.* **27(1-2)**, 121-130 (2002).
2. McLean, M.J., Schmutz, M., Wamil, A.W., *et al.* Oxcarbazepine: Mechanisms of action. *Epilepsia* **35(Suppl. 3)**, S5-S9 (1994).

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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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