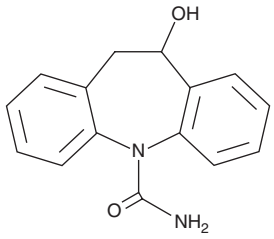
PRODUCT INFORMATION

10,11-dihydro-10-hydroxy Carbamazepine

Item No. 18467

CAS Registry No.: 29331-92-8
Formal Name: 10,11-dihydro-10-hydroxy-5H-dibenz[b,f]azepine-5-carboxamide
Synonyms: BIA 2-005, 10,11-dihydro-10-hydroxy CBZ, 10,11-hydroxy-10,11 Dihydrocarbamezer, GP 47779, Licarbazepine
MF: $C_{15}H_{14}N_2O_2$
FW: 254.3
Purity: ≥98%
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

10,11-dihydro-10-hydroxy Carbamazepine is supplied as a crystalline solid. A stock solution may be made by dissolving the 10,11-dihydro-10-hydroxy carbamazepine in the solvent of choice, which should be purged with an inert gas. 10,11-dihydro-10-hydroxy Carbamazepine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 10,11-dihydro-10-hydroxy carbamazepine in ethanol is approximately 3 mg/ml and approximately 25 mg/ml in DMSO and DMF.

10,11-dihydro-10-hydroxy Carbamazepine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 10,11-dihydro-10-hydroxy carbamazepine should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. 10,11-dihydro-10-hydroxy Carbamazepine has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

10,11-dihydro-10-hydroxy Carbamazepine is an antiepileptic agent and active metabolite of the prodrug oxcarbazepine (Item No. 17340).[1] It is a racemic mixture of (R)- and (S)-10,11-dihydro-10-hydroxy carbamazepine. (S)-10,11-dihydro-10-hydroxy Carbamazepine protects against seizures induced by maximal electroshock (MES) in rats by 42% while (R)-10,11-dihydro-10-hydroxy carbamazepine only protects against MES-induced seizures by 22.5%.

Reference

1. Benes, J., Parada, A., Figueiredo, A.A., *et al.* Anticonvulsant and sodium channel-blocking properties of novel 10,11-dihydro-5H-dibenz[b,f]azepine-5-carboxamide derivatives. *J. Med. Chem.* **42(14),** 2582-2587 (1999).

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