

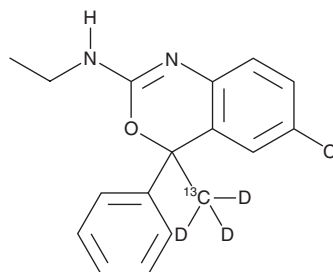
PRODUCT INFORMATION



Etifoxine-¹³C-d₃

Item No. 30235

Formal Name: 6-chloro-N-ethyl-4-methyl-¹³C-d₃-4-phenyl-4H-3,1-benzoxazin-2-amine
MF: C₁₆[¹³C]H₁₄D₃ClN₂O
FW: 304.8
Chemical Purity: ≥98% (Etifoxine)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₃); ≤1% d₀
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

Etifoxine-¹³C-d₃ is intended for use as an internal standard for the quantification of etifoxine (Item No. 15999) 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).

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

Description

Etifoxine is a positive allosteric modulator of $\alpha_1\beta_2\gamma_2$ and $\alpha_1\beta_3\gamma_2$ subunit-containing GABA_A receptors.¹ It selectively increases GABA-induced currents in *X. laevis* oocytes expressing $\alpha_1\beta_2\gamma_2$ or $\alpha_1\beta_3\gamma_2$ over $\alpha_1\beta_1\gamma_2$ subunit-containing receptors at 20 μ M. Etifoxine inhibits binding of the GABA_A receptor agonist muscimol in rat cortical membranes with a K_d value of 23 nM in a radioligand binding assay.² It increases NGF-induced neurite outgrowth in PC12 cells when used at a concentration of 20 μ M.³ Etifoxine (12.5 mg/kg, i.p.) increases the percentage of time spent in the open arms of the elevated plus maze in high-anxiety BALB/cByJ, but not C57BL/6, mice, indicating anxiolytic-like activity.⁴ It increases the seizure threshold in a mouse model of seizures induced by picrotoxin (Item No. 20771) with a minimum effective dose (MED) of 75 mg/kg.² Etifoxine (50 mg/kg, i.p.) also increases the paw withdrawal threshold on the ipsilateral side in a rat model of rheumatoid arthritis induced by complete Freund's adjuvant.⁵

References

1. Hamon, A., Morel, A., Hue, B., et al. *Neuropharmacology* **45**(3), 293-303 (2003).
2. Verleye, M., Pansart, Y., and Gillardin, J. *Neurosci. Res.* **44**(2), 167-172 (2002).
3. Girard, C., Liu, S., Cadepond, F., et al. *Proc. Natl. Acad. Sci. USA* **105**(51), 20505-20510 (2008).
4. Verleye, M., Dumas, S., Heulard, I., et al. *Eur. Neuropsychopharmacol.* **21**(6), 457-470 (2011).
5. Aouad, M., Zell, V., Juif, P.E., et al. *Pain* **155**(2), 403-412 (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.

Copyright Cayman Chemical Company, 05/20/2020

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