

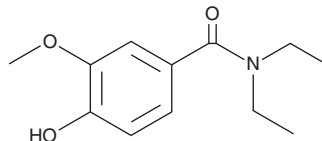
PRODUCT INFORMATION



Ethamivan

Item No. 30876

CAS Registry No.: 304-84-7
Formal Name: N,N-diethyl-4-hydroxy-3-methoxy-benzamide
Synonyms: NSC 406087, Vanillic Acid diethylamide
MF: C₁₂H₁₇NO₃
FW: 223.3
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Synthetic



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

Laboratory Procedures

Ethamivan is supplied as a solid. A stock solution may be made by dissolving the ethamivan in the solvent of choice, which should be purged with an inert gas. Ethamivan is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of ethamivan in ethanol is approximately 30 mg/ml and approximately 25 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of ethamivan can be prepared by directly dissolving the solid in aqueous buffers. The solubility of ethamivan in PBS, pH 7.2, is approximately 0.2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Ethamivan is a phenol that has been found in *M. esculenta* and has antioxidant and analeptic properties.¹⁻³ It scavenges 2,2-diphenyl-1-picrylhydrazyl (DPPH; Item No. 14805) and ABTS (Item No. 27317) radicals with EC₅₀ values of 0.374 and 0.05 mg/ml, respectively, in cell-free assays.¹ Ethamivan (0.25 mg/kg, i.v.) increases the respiratory rate of anesthetized cats, an effect that can be blocked by cervical vagotomy.² Intravenous infusion of ethamivan (19.4-25.2 mg/kg) induces convulsions in conscious cats.³

References

1. Yi, B., Hu, L., Mei, W., *et al.* Antioxidant phenolic compounds of cassava (*Manihot esculenta*) from Hainan. *Molecules* **16**(12), 10157-10167 (2011).
2. Hirsh, K., and Wang, S.C. Respiratory stimulant effects of ethamivan and picrotoxin. *J. Pharmacol. Exp. Ther.* **193**(2), 657-663 (1975).
3. Luscombe, D.K. and Nicholls, P.J. Relationship between respiratory stimulant and convulsant activity of doxapram hydrochloride in conscious animals. *Pharmacol. Res. Commun.* **3**(4), 369-376 (1971).

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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