

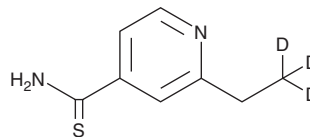
PRODUCT INFORMATION



Ethionamide-d₃

Item No. 33636

CAS Registry No.: 2748267-66-3
Formal Name: 2-ethyl-2,2,2-d₃-4-pyridinecarbothioamide
MF: C₈H₇D₃N₂S
FW: 169.3
Chemical Purity: ≥98% (Ethionamide)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₃); ≤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

Ethionamide-d₃ is intended for use as an internal standard for the quantification of ethionamide (Item No. 23714) 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).

Ethionamide-d₃ is supplied as a solid. A stock solution may be made by dissolving the ethionamide-d₃ in the solvent of choice, which should be purged with an inert gas. Ethionamide-d₃ is soluble in methanol and DMSO.

Description

Ethionamide is an antimycobacterial compound that is active against *M. tuberculosis* (MICs = 0.3-1.25 µg/ml).^{1,2} It is activated *via* oxidation by flavin monooxygenase and inhibits the InhA enzyme involved in mycolic acid biosynthesis.¹ Formulations containing ethionamide have been used in the second-line treatment of multi-drug resistant tuberculosis.

References

1. Laborde, J., Deraeve, C., and Bernardes-Génisson, V. Update of antitubercular prodrugs from a molecular perspective: Mechanisms of action, bioactivation pathways, and associated resistance. *ChemMedChem* **12**(20), 1657-1676 (2017).
2. Heifets, L.B., Lindholm-Levy, P.J., and Flory, M. Comparison of bacteriostatic and bactericidal activity of isoniazid and ethionamide against *Mycobacterium avium* and *Mycobacterium tuberculosis*. *Am. Rev. Respir. Dis.* **143**(2), 268-270 (1991).

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, 09/06/2023

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