

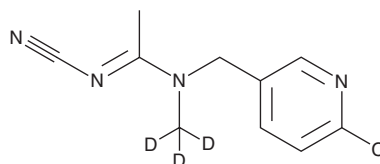
PRODUCT INFORMATION



Acetamiprid-d₃

Item No. 39565

CAS Registry No.: 1353869-35-8
Formal Name: (1E)-N-[(6-chloro-3-pyridinyl)methyl]-N'-cyano-N-(methyl-d₃)-ethanimidamide
MF: C₁₀H₈ClD₃N₄
FW: 225.7
Chemical Purity: ≥98% (Acetamiprid)
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

Acetamiprid-d₃ is intended for use as an internal standard for the quantification of Acetamiprid (Item No. 24129) 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).

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

Description

Acetamiprid is a neonicotinoid insecticide that acts as an agonist of insect nicotinic acetylcholine receptors (nAChRs).¹ It activates nAChRs containing *N. lugens* α1 and rat β2 subunits with an EC₅₀ value of 67 μM in *X. laevis* oocytes. Acetamiprid administered to pregnant mice at a dose of 1 mg/kg leads to sexual and aggressive behaviors in adult male offspring while doses of 1 and 10 mg/kg decrease anxiety-like behavior of adult male offspring in the light-dark transition test.² Formulations containing acetamiprid have been used to control sucking insects on crops and pets.

References

1. Liu, Z., Williamson, M.S., Lansdell, S.J., *et al.* A nicotinic acetylcholine receptor mutation (Y151S) causes reduced agonist potency to a range of neonicotinoid insecticides. *J. Neurochem.* **99**(4), 1273-1281 (2006).
2. Sano, K., Isobe, T., Yang, J., *et al.* *In utero* and lactational exposure to acetamiprid induces abnormalities in socio-sexual and anxiety-related behaviors of male mice. *Front. Neurosci.* **10**, 228, (2016).

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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