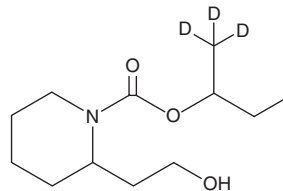


PRODUCT INFORMATION



Picaridin-d₃ Item No. 34424

CAS Registry No.: 2928067-33-6
Formal Name: 2-(2-hydroxyethyl)-1-piperidinecarboxylic acid,
1-methyl-d₃-propyl ester
Synonym: Icaridin-d₃
MF: C₁₂H₂₀D₃NO₃
FW: 232.3
Chemical Purity: ≥95% (Picaridin)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₃); ≤1% d₀
Supplied as: An oil
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Picaridin-d₃ is intended for use as an internal standard for the quantification of picaridin (Item No. 16458) 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).

Picaridin-d₃ is supplied as an oil. A stock solution may be made by dissolving the picaridin-d₃ in the solvent of choice, which should be purged with an inert gas. Picaridin-d₃ is slightly soluble in chloroform and methanol.

Description

Picaridin is an insect repellent.¹⁻³ It inhibits *A. aegypti* odorant receptor 2 (AaOR2) or AaOR8 in the presence of their odorant activators, indole and octenol, respectively, expressed in *Xenopus* oocytes (IC₅₀s = 1,452 and 1,911 μM, respectively).¹ Picaridin reduces the number of entries into a food chamber by female *D. melanogaster* in an olfactory-based choice assay.² It acts synergistically with the non-pyrethroid insecticide pyrimiphos methyl to increase mortality of *A. gambiae* and reduce blood feeding when used at a concentration of 10 g/m² on nets surrounding guinea pig cages.³ Formulations containing picaridin have been used as insect repellants against flies, mosquitoes, chiggers, ticks, and fleas.

References

1. Bohbot, J.D. and Dickens, J.C. Insect repellents: Modulators of mosquito odorant receptor activity. *PLoS One* **5**(8), 1-11 (2010).
2. Syed, Z., Pelletier, J., Flounders, E., *et al.* Generic insect repellent detector from the fruit fly *Drosophila melanogaster*. *PLoS One* **6**(3), e17705 (2011).
3. Pennetier, C., Corbel, V., Boko, P., *et al.* Synergy between repellents and non-pyrethroid insecticides strongly extends the efficacy of treated nets against *Anopheles gambiae*. *Malar. J.* **6**, 38 (2007).

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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