

Product Data Sheet

Product Name: Dinotefuran-d3

Cat. No.: GC71670

Chemical Properties

Cas. No.

Formula C₇H₁₁D₃N₄O₃

M.Wt 205.23

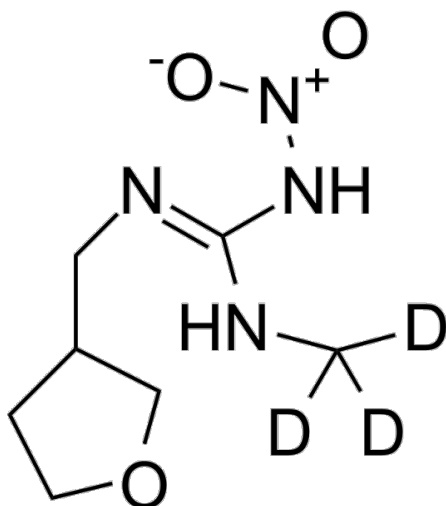
Solubility

Storage

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

Dinotefuran-d3 is the deuterium labeled Dinotefuran[1]. Dinotefuran is an insecticide of the neonicotinoid class, its mechanism of action involves disruption of the insect's nervous system by inhibiting nicotinic acetylcholine receptors[2].

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug

Caution: Product has not been fully validated for medical applications. For research use only.

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molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs^[1].

References:

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019 Feb;53(2):211-216.
- [2]. Liu T, et al. Biochemical and genetic toxicity of dinotefuran on earthworms (*Eisenia fetida*). *Chemosphere*. 2017 Jun;176:156-164.

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