



SZABO SCANDIC

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Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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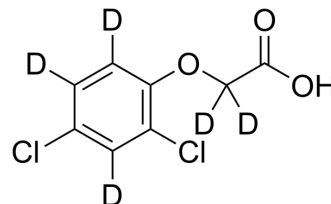
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2,4-D-d₅

Cat. No.:	HY-18572S2
CAS No.:	352438-69-8
Molecular Formula:	C ₈ HD ₅ Cl ₂ O ₃
Molecular Weight:	226.07
Target:	DNA/RNA Synthesis
Pathway:	Cell Cycle/DNA Damage
Storage:	-20°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (442.34 mM; Need ultrasonic and warming)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	4.4234 mL	22.1170 mL	44.2341 mL
	5 mM	0.8847 mL	4.4234 mL	8.8468 mL
	10 mM	0.4423 mL	2.2117 mL	4.4234 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

2,4-D-d₅ is the deuterium labeled 2,4-D[1]. 2,4-D (2,4-Dichlorophenoxyacetic acid) is a selective systemic herbicide for the control of broad-leaved weeds. 2,4-D acts as a plant hormone, causing uncontrolled growth in the meristematic tissues. 2,4-D inhibits DNA and protein synthesis and thereby prevents normal plant growth and development[2].

In Vitro

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

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019 Feb;53(2):211-216.

[2]. Germaine KJ, et al. Bacterial endophyte-enhanced phytoremediation of the organochlorine herbicide 2,4-dichlorophenoxyacetic acid. *FEMS Microbiol Ecol*. 2006 Aug;57(2):302-10.

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

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