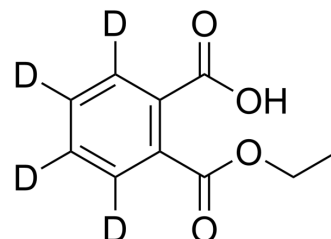


Monoethyl phthalate-d₄

Cat. No.:	HY-133668S		
CAS No.:	1219806-03-7		
Molecular Formula:	C ₁₀ H ₆ D ₄ O ₄		
Molecular Weight:	198.21		
Target:	Isotope-Labeled Compounds		
Pathway:	Others		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (252.26 mM; Need ultrasonic)

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		5.0452 mL	25.2258 mL	50.4515 mL
	5 mM		1.0090 mL	5.0452 mL	10.0903 mL
	10 mM		0.5045 mL	2.5226 mL	5.0452 mL

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

BIOLOGICAL ACTIVITY

Description

Monoethyl phthalate-d₄ is the deuterium labeled Monoethyl phthalate[1]. Monoethyl phthalate is a metabolite of diethyl phthalate. Monoethyl phthalate acts as a urinary biomarker of phthalates exposure indicating the risks of thyroid cancer and benign nodule[2][3].

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]. Chong Liu, et al. Urinary biomarkers of phthalates exposure and risks of thyroid cancer and benign nodule. J Hazard Mater. 2020 Feb 5;383:121189.

[3]. Celal Güven, et al. Low dose monoethyl phthalate (MEP) exposure triggers proliferation by activating PDX-1 at 1.1B4 human pancreatic beta cells. Food Chem Toxicol. 2016 Jul;93:41-50.

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

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