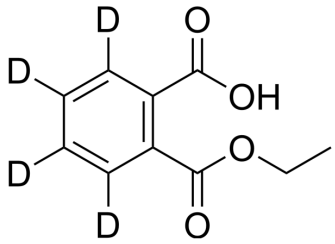
Monoethyl phthalate-d_4

Cat. No.:	HY-133668S
CAS No.:	1219806-03-7
Molecular Formula:	$C_{10}H_6D_4O_4$
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)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	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-d_4 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.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA