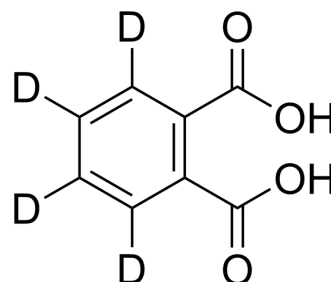


Phthalic acid-d₄

Cat. No.:	HY-I0508S		
CAS No.:	87976-26-9		
Molecular Formula:	C ₈ H ₂ D ₄ O ₄		
Molecular Weight:	170.16		
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 : 100 mg/mL (587.68 mM; Need ultrasonic)

Concentration	Solvent	Mass	1 mg	5 mg	10 mg
			1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		5.8768 mL	29.3841 mL	58.7682 mL
	5 mM		1.1754 mL	5.8768 mL	11.7536 mL
	10 mM		0.5877 mL	2.9384 mL	5.8768 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (14.69 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (14.69 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (14.69 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Phthalic acid-d₄ is the deuterium labeled Phthalic acid. Phthalic acid is the final common metabolite of phthalic acid esters (PAEs). Phthalic acid can be used for the synthesis of synthetic agents, such as isophthalic acid (IPA), and terephthalic acid (TPA). Phthalic acid has applications in the preparation of phthalate ester plasticizers[1].

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;53(2):211-216.
- [2]. Du Yeon Bang, et al. Toxicological Characterization of Phthalic Acid. *Toxicol Res* 2011;27:191-203
-

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

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