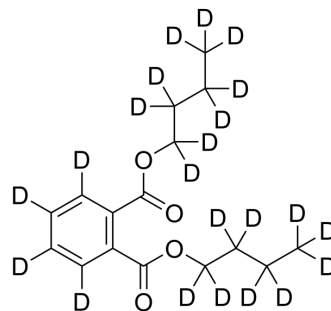


Dibutyl phthalate-d₂₂

Cat. No.:	HY-Y0304S1
CAS No.:	358731-15-4
Molecular Formula:	C ₁₆ D ₂₂ O ₄
Molecular Weight:	300.48
Target:	Isotope-Labeled Compounds
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Dibutyl phthalate-d ₂₂ is the deuterium labeled Dibutyl phthalate[1]. Dibutyl phthalate is a commonly used plasticizer commonly found in some food packaging materials, personal care products, and the coating of oral medications. May cause toxicity and adverse neurobehavioral effects[2][3][4].
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]. Rasmussen LM, et al. Effects of in vitro exposure to dibutyl phthalate, mono-butyl phthalate, and acetyl tributyl citrate on ovarian antral follicle growth and viability. *Biol Reprod*. 2017 May 1;96(5):1105-1117.
- [3]. Aly HA, et al. Dibutyl phthalate induces oxidative stress and impairs spermatogenesis in adult rats. *Toxicol Ind Health*. 2016 Aug;32(8):1467-1477.
- [4]. Farzanehfar V, et al. Determination of dibutyl phthalate neurobehavioral toxicity in mice. *Food Chem Toxicol*. 2016 Aug;94:221-6.

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

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