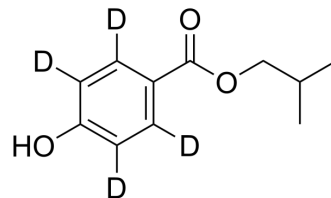


Isobutylparaben-d₄

Cat. No.:	HY-W015026S
CAS No.:	1219805-33-0
Molecular Formula:	C ₁₁ H ₁₀ D ₄ O ₃
Molecular Weight:	198.25
Target:	Bacterial
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Isobutylparaben-d ₄ is the deuterium labeled Isobutylparaben[1]. Isobutylparaben (Isobutyl 4-hydroxybenzoate) is a constitutive androstane receptor (CAR) activator. Isobutylparaben has a broad-spectrum antimicrobial activity and widely used in personal care products and cosmetics[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]. Chieri Fujino, et al. Comparative Study of the Effect of 17 Parabens on PXR-, CAR- And PPARα-mediated Transcriptional Activation. *Food Chem Toxicol.* 2019 Nov;133:110792.
- [3]. Fei Meng, et al. Isobutylparaben Negatively Affects Porcine Oocyte Maturation Through Increasing Oxidative Stress and Cytoskeletal Abnormalities. *Environ Mol Mutagen.* 2020 Apr61(4):433-444.

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

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