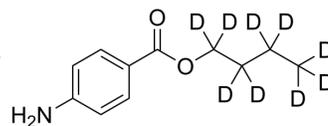


## Butamben-d9

<b>Cat. No.:</b>	HY-B1430S
<b>Molecular Formula:</b>	C <sub>11</sub> H <sub>6</sub> D <sub>9</sub> NO <sub>2</sub>
<b>Molecular Weight:</b>	202.3
<b>Target:</b>	Calcium Channel; Potassium Channel; Sodium Channel; Isotope-Labeled Compounds
<b>Pathway:</b>	Membrane Transporter/Ion Channel; Neuronal Signaling; Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Butamben-d <sub>9</sub> is the deuterium labeled Butamben. Butamben (Butyl 4-aminobenzoate) results in long-lasting relief from pain, without impairing motor function or other sensory functions[1][2].
<b>In Vitro</b>	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 <sup>[1]</sup> . 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]. Berg RJV, et al. The local anesthetic n-butyl-p-aminobenzoate selectively affects inactivation of fast sodium currents in cultured rat sensory neurons. *Anesthesiology*. 1995 Jun;82(6):1463-73.
- [3]. Rampaart LJA, et al. The local anesthetic butamben inhibits total and L-type barium currents in PC12 cells. *Anesth Analg*. 2008 Jun;106(6):1778-83.
- [4]. Cereda CM, et al. Liposomal butamben gel formulations: toxicity assays and topical anesthesia in an animal model. *J Liposome Res*. 2017 Mar;27(1):74-82.

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

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