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**Product Data Sheet**

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Product Name: (±)-Penbutolol-d9 hydrochloride

Cat. No.: GC62727

**Chemical Properties**

Cas. No. 1346605-01-3

Formula C<sub>18</sub>H<sub>21</sub>D<sub>9</sub>ClNO<sub>2</sub> M.Wt 336.94

Solubility Storage

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure **Background**

(±)-Penbutolol-d9 ((Rac)-Penbutolol-d9) hydrochloride is a deuterium labeled (±)-Penbutolol hydrochloride. (+)-Penbutolol hydrochloride is a β-adrenoceptor antagonist, with an IC<sub>50</sub> of 0.74 μM[1].

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[2].

[1]. Chen M, et al. Effects of beta-adrenoceptor antagonists on Ca(2+)-overload induced by lysophosphatidylcholine in rat isolated cardiomyocytes. Br J Pharmacol. 1996 Jun;118(4):865-70.

[2]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

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

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