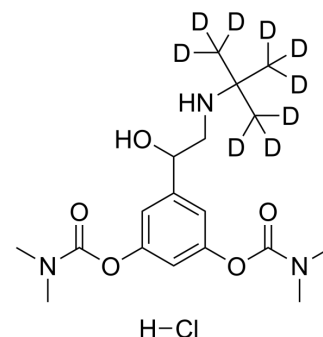


Bambuterol-d₉ hydrochloride

Cat. No.:	HY-17501S
CAS No.:	1794810-59-5
Molecular Formula:	C ₁₈ H ₂₁ D ₉ ClN ₃ O ₅
Molecular Weight:	412.96
Target:	Adrenergic Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 25 mg/mL (60.54 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
		Concentration				
		1 mM		2.4215 mL	12.1077 mL	24.2154 mL
		5 mM		0.4843 mL	2.4215 mL	4.8431 mL
10 mM		0.2422 mL	1.2108 mL	2.4215 mL		
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (6.05 mM); Clear solution 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (6.05 mM); Clear solution 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (6.05 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	Bambuterol-d ₉ (hydrochloride) is the deuterium labeled Bambuterol. Bambuterol ((±)-Bambuterol) hydrochloride is a long acting beta-adrenoceptor agonist (LABA) used in the treatment of asthma; it also is a prodrug of terbutaline.
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]. Bambuterol, From Wikipedia

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

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