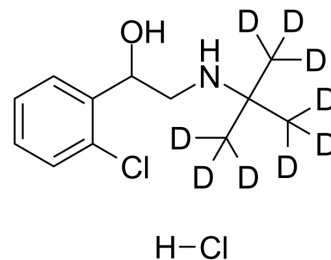


Tulobuterol-D9 hydrochloride

Cat. No.:	HY-B1810S
CAS No.:	1325559-14-5
Molecular Formula:	C ₁₂ H ₁₀ D ₉ Cl ₂ NO
Molecular Weight:	273.25
Target:	Adrenergic Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Tulobuterol-D9 hydrochloride (C-78-D9) is the deuterium labeled Tulobuterol. Tulobuterol (C-78 free base) is a long-acting β_2 -adrenoceptor agonist, which reduces the frequency of exacerbations of chronic obstructive pulmonary disease and bronchial asthma. Tulobuterol is also a sympathomimetic agent used as a transdermal patch, and increases normal diaphragm muscle strength ^[1] .
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]. Yamaya M, et al. Tulobuterol inhibits rhinovirus infection in primary cultures of human tracheal epithelial cells. *Physiol Rep.* 2013 Aug;1(3):e00041.; Shindoh C, et al. Tulobuterol patch maintains diaphragm muscle contractility for over twenty-four hours in a mouse model of sepsis. *Tohoku J Exp Med.* 2009 Aug;218(4):271-8.

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

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