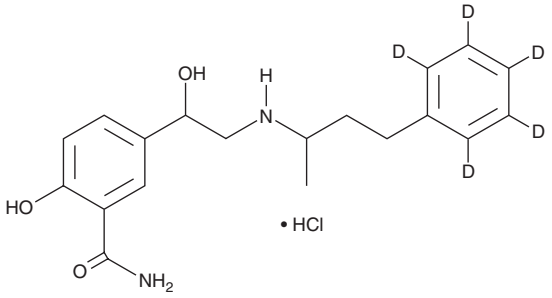
PRODUCT INFORMATION

Labetalol-d_5 (hydrochloride)

Item No. 31609

CAS Registry No.: 2713514-78-2
Formal Name: 2-hydroxy-5-[1-hydroxy-2-[(1-methyl-3-(phenyl-d_5)propyl)amino]ethyl]-benzamide, monohydrochloride
Synonyms: AH 5158A-d_5, SCH 15719W-d_5
MF: $C_{19}H_{19}D_5N_2O_3$ • HCl
FW: 369.9
Chemical Purity: ≥99% (Labetalol)
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_5); ≤1% d_0
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Labetalol-d_5 (hydrochloride) is intended for use as an internal standard for the quantification of labetalol (Item No. 20249) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Labetalol-d_5 (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the labetalol-d_5 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Labetalol-d_5 (hydrochloride) is soluble in DMSO and methanol.

Description

Labetalol is an adrenergic receptor (AR) antagonist.[1] It inhibits agonist-induced contraction of rabbit aortic strips, decreases in contractile force in isolated guinea pig atria, and vasorelaxation in isolated guinea pig tracheal strips (pA_2s = 6.99, 7.68, and 7.54, respectively), tissues that endogenously express high levels of α-, β_1-, and β_2-ARs, respectively. Labetalol (2.5-25 mg/kg) reduces blood pressure in spontaneously hypertensive rats. It reduces blood pressure in DOC-salt rats, two-kidney Goldblatt rats, and one-kidney dogs. Labetalol (5 mg/kg) reduces infarct size in a dog model of myocardial infarction induced by occlusion of the left anterior descending artery. Topical administration of labetalol (0.25-1% v/v) reduces intraocular pressure in rabbits. Formulations containing labetalol have been used in the treatment of hypertension.

Reference

1. Baum, T. and Sybertz, E.J. Pharmacology of labetalol in experimental animals. *Am. J. Med.* **75(4A)**, 15-23 (1983).

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