

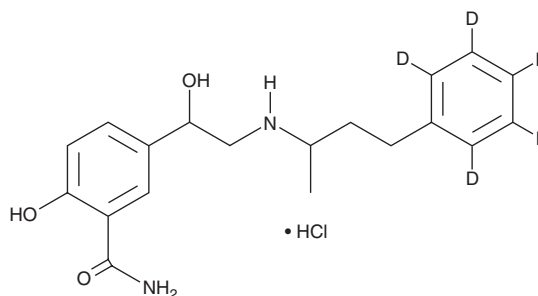
# PRODUCT INFORMATION



## Labetalol-d<sub>5</sub> (hydrochloride)

Item No. 31609

**CAS Registry No.:** 2713514-78-2  
**Formal Name:** 2-hydroxy-5-[1-hydroxy-2-[(1-methyl-3-(phenyl-d<sub>5</sub>)propyl)amino]ethyl]-benzamide, monohydrochloride  
**Synonyms:** AH 5158A-d<sub>5</sub>, SCH 15719W-d<sub>5</sub>  
**MF:** C<sub>19</sub>H<sub>19</sub>D<sub>5</sub>N<sub>2</sub>O<sub>3</sub> • HCl  
**FW:** 369.9  
**Chemical Purity:** ≥99% (Labetalol)  
**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>5</sub>); ≤1% d<sub>0</sub>  
**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<sub>5</sub> (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<sub>5</sub> (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the labetalol-d<sub>5</sub> (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Labetalol-d<sub>5</sub> (hydrochloride) is soluble in DMSO and methanol.

### Description

Labetalol is an adrenergic receptor (AR) antagonist.<sup>1</sup> 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<sub>2</sub>s = 6.99, 7.68, and 7.54, respectively), tissues that endogenously express high levels of α-, β<sub>1</sub>-, and β<sub>2</sub>-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).

**WARNING**  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**  
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