

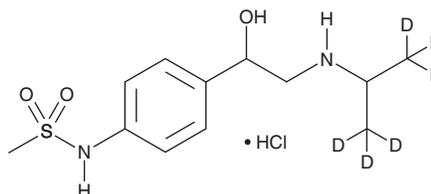
# PRODUCT INFORMATION



## Sotalol-d<sub>6</sub> (hydrochloride)

Item No. 29097

**CAS Registry No.:** 1246820-85-8  
**Formal Name:** N-(4-(1-hydroxy-2-((propan-2-yl-1,1,1,3,3,3-d<sub>6</sub>)amino)ethyl)phenyl)methanesulfonamide, monohydrochloride  
**Synonyms:** MJ1999-d<sub>6</sub>, (±)-Sotalol-d<sub>6</sub>, DL-Sotalol-d<sub>6</sub>  
**MF:** C<sub>12</sub>H<sub>14</sub>D<sub>6</sub>N<sub>2</sub>O<sub>3</sub>S • HCl  
**FW:** 314.9  
**Chemical Purity:** ≥98% (Sotalol)  
**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>6</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

Sotalol-d<sub>6</sub> (hydrochloride) is intended for use as an internal standard for the quantification of sotalol (Item No. 16136) 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).

Sotalol-d<sub>6</sub> (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the sotalol-d<sub>6</sub> (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Sotalol-d<sub>6</sub> (hydrochloride) is soluble in organic solvents such as methanol and DMSO.

### Description

Sotalol is a non-selective antagonist of β-adrenergic receptors (β-ARs; IC<sub>50</sub>s = 8.9 and 5.2 μM for β1- and β2-ARs, respectively) and a class III antiarrhythmic agent.<sup>1,2</sup> It decreases delayed outward potassium currents (IK) in guinea pig ventricular cells and prolongs action potential duration in electrically stimulated isolated guinea pig papillary muscles when used at a concentration of 100 μM.<sup>3</sup> Sotalol decreases heart rate and increases blood pressure and the cardiac functional refractory period (FRP) in a canine model of ventricular tachycardia induced by programmed electrical stimulation (PES).<sup>1</sup> Formulations containing sotalol have been used in the treatment of ventricular arrhythmias and maintenance of normal sinus rhythm in patients with atrial fibrillation or flutter (AFIB/AFL).

### References

1. Lis, R., Morgan, T.K., Jr., Marisca, A.J., *et al.* Synthesis of novel (aryloxy) propanolamines and related compounds possessing both class II and class III antiarrhythmic activity. *J. Med. Chem.* **33(10)**, 2883-2891 (1990).
2. Antonaccio, M.J. and Gomoll, A. Pharmacology, pharmacodynamics and pharmacokinetics of sotalol. *Am. J. Cardiol.* **65(2)**, 12A-21A (1990).
3. Komeichi, K., Tohse, N., Nakaya, H., *et al.* Effects of N-acetylprocainamide and sotalol on ion currents in isolated guinea-pig ventricular myocytes. *Eur. J. Pharm.* **187(3)**, 313-322 (1990).

#### 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.

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