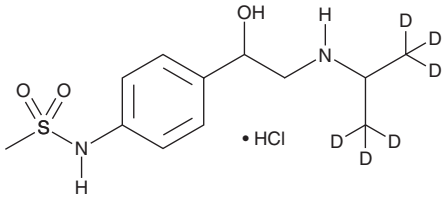
# PRODUCT INFORMATION

## Sotalol-$d_6$ (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-$d_6$)amino)ethyl) phenyl)methanesulfonamide, monohydrochloride |
| **Synonyms:** | MJ1999-$d_6$, (±)-Sotalol-$d_6$, DL-Sotalol-$d_6$ |
| **MF:** | $C_{12}H_{14}D_6N_2O_3S$ • HCl |
| **FW:** | 314.9 |
| **Chemical Purity:** | ≥98% (Sotalol) |
| **Deuterium Incorporation:** | ≥99% deuterated forms ($d_1$-$d_6$); ≤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

Sotalol-$d_6$ (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-$d_6$ (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the sotalol-$d_6$ (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Sotalol-$d_6$ (hydrochloride) is soluble in organic solvents such as methanol and DMSO.

### Description

Sotalol is a non-selective antagonist of β-adrenergic receptors (β-ARs; $IC_{50}$s = 8.9 and 5.2 µM for β1- and β2-ARs, respectively) and a class III antiarrhythmic agent.[1,2] 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.[3] 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).[1] 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).





**CAYMAN CHEMICAL**
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
**PHONE:** [800] 364-9897
[734] 971-3335
**FAX:** [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM