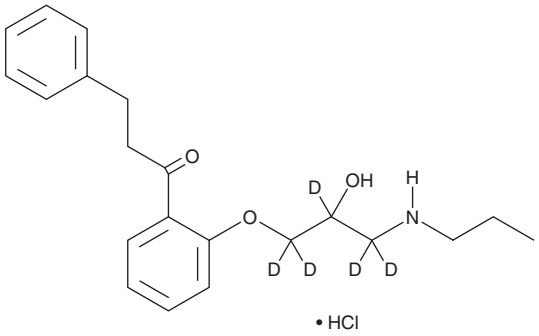
PRODUCT INFORMATION

Propafenone-d_5 (hydrochloride)

Item No. 33293

CAS Registry No.: 1346605-05-7
Formal Name: 1-(2-(2-hydroxy-3-(propylamino)propoxy-1,1,2,3,3-d_5)phenyl)-3-phenylpropan-1-one, monohydrochloride
MF: $C_{21}H_{22}D_5NO_3 \bullet HCl$
FW: 382.9
Chemical Purity: ≥98% (Propafenone)
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

Propafenone-d_5 (hydrochloride) is intended for use as an internal standard for the quantification of propafenone (Item No. 21871) 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).

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

Description

Propafenone is a class I antiarrhythmic agent.[1] It inhibits calcium currents (I_{Ca}) in isolated guinea pig ventricular myocytes (IC_{50} = 5 µM), as well as ATP-sensitive potassium currents (IK_{ATP}) in isolated rabbit atrial and ventricular monocytes (IC_{50}s = 1.26 and 4.94 µM, respectively).[1,2] Propafenone also blocks sodium (I_{Na}), potassium (I_K), and transient outward potassium currents in various cardiac cells.[2-4] *In vivo*, propafenone (2 and 3 mg/kg, i.v.) reverses sinus rhythm in a dog model of barium chloride-induced ventricular arrhythmia.[5] Formulations containing propafenone have been used in the treatment of cardiac arrhythmias.

References

1. Delgado, C., Tamargo, J., D., H., *et al.* Effects of propafenone on calcium current in guinea-pig ventricular myocytes. *Br. J. Pharmacol.* **108(3)**, 721-727 (1993).
2. Christé, G., Tebbakh, H., Šimurdová, M., *et al.* Propafenone blocks ATP-sensitive K^+ channels in rabbit atrial and ventricular cardiomyocytes. *Eur. J. Pharmacol.* **373(2-3)**, 223-232 (1999).
3. Delpón, E., Valenzuela, C.F., Pérez, O., *et al.* Propafenone preferentially blocks the rapidly activating component of delayed rectifier K^+ current in guinea pig ventricular myocytes. Voltage-independent and time-dependent block of the slowly activating component. *Circ. Res.* **76(2)**, 223-235 (1995).
4. Aoyama, K., Ishikuro, E., Noriduki, H., *et al.* Formation ratios of zearalanone, zearalenols, and zearalanols *versus* zearalenone during incubation of *Fusarium semitectum* on sorghum and ratios in naturally contaminated sorghum. *Food Hyg. Saf. Sci.* **56(6)**, 247-251 (2015).
5. Germiniani, H. and Germiniani, C. Effect of propafenone hydrochloride in ventricular arrhythmias experimentally induced by barium chloride. *Arq. Bras. Cardiol.* **36(2)**, 101-105 (1981).

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