

# PRODUCT INFORMATION



## Dronedarone (hydrochloride)

Item No. 9000543

CAS Registry No.: 141625-93-6

Formal Name: N-[2-butyl-3-[4-[3-(dibutylamino)propoxy]benzoyl]-5-benzofuranyl]-methanesulfonamide, monohydrochloride

Synonym: SR33589

MF:  $C_{31}H_{44}N_2O_5S \cdot HCl$

FW: 593.2

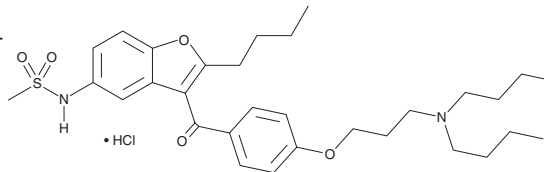
Purity:  $\geq 98\%$

UV/Vis.:  $\lambda_{max}$ : 219, 251, 288 nm

Supplied as: A crystalline solid

Storage:  $-20^\circ C$

Stability:  $\geq 4$  years



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

### Laboratory Procedures

Dronedarone is supplied as a crystalline solid. A stock solution may be made by dissolving the dronedarone in the solvent of choice, which should be purged with an inert gas. Dronedarone is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of dronedarone in ethanol is approximately 5 mg/ml and approximately 10 mg/ml in DMSO and DMF.

### Description

Dronedarone is an antiarrhythmic agent and a derivative of amiodarone (Item No. 15213).<sup>1,2</sup> It inhibits muscarinic acetylcholine receptor-dependent potassium currents induced by carbachol (carbamoylcholine; Item No. 14486) or intracellular loading of GTPyS in single cells isolated from guinea pig atria ( $IC_{50}$ s = 0.1 and 1  $\mu M$ , respectively).<sup>2</sup> Dronedarone (50 and 100 mg/kg) reduces sinus frequency and prolongs action potential duration (APD) in isolated rabbit ventricular myocardium. It increases atrial APD and the atrial effective refractory period (AERP) in a dog model of atrial fibrillation induced by rapid right atrial pacing.<sup>3</sup> Formulations containing dronedarone have been used in the treatment of atrial fibrillation.

### References

1. Sun, W., Sarma, J.S., and Singh, B.N. Electrophysiological effects of dronedarone (SR33589), a noniodinated benzofuran derivative, in the rabbit heart: Comparison with amiodarone. *Circulation* **100**(22), 2276-2281 (1999).
2. Guillemare, E., Marion, A., Nisato, D., et al. Inhibitory effects of dronedarone on muscarinic  $K^+$  current in guinea pig atrial cells. *J. Cardiovasc. Pharmacol.* **36**(6), 802-805 (2000).
3. Saengklub, N., Limprasutr, V., Sawangkoon, S., et al. Dronedarone attenuates the duration of atrial fibrillation in a dog model of sustained atrial fibrillation. *Exp. Anim.* **66**(3), 251-258 (2017).

#### 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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