Hydroquinidine is supplied as a crystalline solid. A stock solution may be made by dissolving the hydroquinidine in the solvent of choice, which should be purged with an inert gas. Hydroquinidine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of hydroquinidine in these solvents is approximately 1, 25, and 30 mg/ml, respectively. Hydroquinidine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, hydroquinidine should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Hydroquinidine has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Hydroquinidine is an alkaloid and derivative of the antiarrhythmic agent quinidine that decreases heart rate variability.\(^1\)\(^-\)\(^3\) It increases the length of the sinus cycle and prolongs QRS duration and ventricular repolarization in anesthetized dogs.\(^2\) It has also been imprinted on microspheres as a pseudo-template molecule for recognition of cinchona alkaloids.\(^3\) Formulations containing hydroquinidine have been studied for use in treatment of Brugada syndrome, which is a genetic disorder characterized by ventricular fibrillation and a risk of sudden death.\(^4\)

References