**PRODUCT INFORMATION**

**Drotaverine (hydrochloride)**

*Item No. 20944*

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**CAS Registry No.:** 985-12-6  
**Formal Name:** 1-[(3,4-diethoxyphenyl)methylene]-6,7-diethoxy-1,2,3,4-tetrahydro-isoquinoine, monohydrochloride  
**MF:** C_{24}H_{31}NO_{4}•HCl  
**FW:** 434.0  
**Purity:** ≥98%  
**UV/Vis.:** λ_{max} 244, 305, 359 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly

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**Laboratory Procedures**

Drotaverine (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the drotaverine (hydrochloride) in the solvent of choice. Drotaverine (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of drotaverine (hydrochloride) in ethanol is approximately 0.5 mg/ml and approximately 1 mg/ml in DMSO and DMF.

Drotaverine (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, drotaverine (hydrochloride) should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Drotaverine (hydrochloride) has a solubility of approximately 0.16 mg/ml in a 1:5 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

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**Description**

Drotaverine is an alkaloid that has been described as an inhibitor of phosphodiesterase 4 and negative allosteric modulator of L-type Ca^{2+} channels.\(^1,2\) Formulations containing drotaverine are used as antispasmodics to help cervical dilation in the early stages of labor.\(^3\)

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**References**