Drotaverine (hydrochloride)

Item No. 20944

CAS Registry No.: 985-12-6
Formal Name: 1-[(3,4-diethoxyphenyl)methylene]-6,7-diethoxy-1,2,3,4-tetrahydro-isoquinoline, monohydrochloride

MF: C_{24}H_{31}NO_4 • HCl
FW: 434.0
Purity: ≥ 98%
UV/Vis.: \lambda_{max}^\ast: 244, 305, 359 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥ 4 years

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, which should be purged with an inert gas. Drotaverine (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). 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.

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.\(^1\)\(^2\)

References