

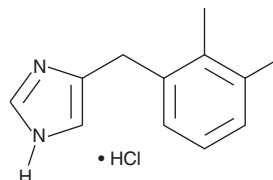
# PRODUCT INFORMATION



## Detomidine (hydrochloride)

Item No. 17853

**CAS Registry No.:** 90038-01-0  
**Formal Name:** 5-[(2,3-dimethylphenyl)methyl]-1H-imidazole, monohydrochloride  
**Synonym:** MPV 253All  
**MF:**  $C_{12}H_{14}N_2 \cdot HCl$   
**FW:** 222.7  
**Purity:**  $\geq 98\%$   
**UV/Vis.:**  $\lambda_{max}$ : 213 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

Detomidine (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the detomidine (hydrochloride) in the solvent of choice. Detomidine (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 detomidine (hydrochloride) in ethanol is approximately 30 mg/ml and approximately 25 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of detomidine (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of detomidine (hydrochloride) in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Detomidine is a selective  $\alpha_2$ -adrenoceptor agonist ( $K_i = 1.62$  nM) that binds to  $\alpha_1$ -adrenoceptors with much weaker potency ( $K_i = 415$  nM).<sup>1</sup> Formulations containing detomidine have been used as veterinary sedatives.

### Reference

1. Virtanen, R., Savola, J.M., Saano, V., *et al.* Characterization of the selectivity, specificity and potency of medetomidine as an  $\alpha_2$ -adrenoceptor agonist. *Eur. J. Pharmacol.* **150(1-2)**, 9-14 (1988).

#### 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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