# Data Sheet (Cat.No.T6579)

TargetMol

## Medetomidine hydrochloride

### Chemical Properties

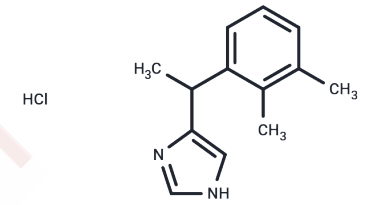
CAS No. : 86347-15-1

Formula: C13H16N2·HCl

Molecular Weight: 236.74

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year




### Biological Description

| | |
|---|---|
| Description | Medetomidine hydrochloride (MPV785) is a selective α2-adrenoceptor agonist, with Ki of 1.08 nM, exhibts 1620-fold selectivity over α1-adrenoceptor. |
| Targets(IC50) | Adrenergic Receptor |
| In vitro | Medetomidine is a selectiveα2-adrenoceptor agonist, with Ki of 1.08 nM, exhibits 1620-fold selectivity over α1-adrenoceptor, has very weak or no binding to other neurotransmitter receptors. [1] |
| In vivo | In anesthetized rats, medetomidine (1-100 μg/kg, i.v.) induces a dose-dependent, relatively short-lived reduction in blood pressure and heart rate. In the pithed rat, medetomidine shows very potent vasopressor (PD50 1.7 μg/kg) and sympatho-inhibitory (ID50 1.6 μg/kg) effects without affecting basal heart rate. [2] Medetomidine induces dose-dependent sedation, which at high doses (>100μg/kg) includes loss of the righting reflex and hypothermia. Medetomidine induces a decreases in the turnover rate of biogenic amines in the brain, dose-dependently inhibits norepinephrine (NE) turnover, inhibits brain dopamine turnover at high doses, decreases serotonin turnover. [3] |

### Solubility Information

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|---|---|
| Solubility | DMSO: 60 mg/mL (253.44 mM),Sonication is recommended.<br>H2O: 23.7 mg/mL (100.11 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 4.224 mL | 21.1202 mL | 42.2404 mL |
| 5 mM | 0.8448 mL | 4.224 mL | 8.4481 mL |
| 10 mM | 0.4224 mL | 2.112 mL | 4.224 mL |
| 50 mM | 0.0845 mL | 0.4224 mL | 0.8448 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Vertanen R, et al. Eur J Pharmacol, 1988, 150(1-2), 9-14.
Savola JM, et al. J Auton Pharmacol, 1986, 6(4), 275-284.
MacDonald E, et al. Eur J Pharmacol, 1988, 158(1-2), 119-127.





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