

Certificate of Analysis

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Product Name: Ondansetron hydrochloride

Catalog No.: 2891

Batch No.: 2

CAS Number: 99614-01-4

IUPAC Name: 1,2,3,9-Tetrahydro-9-methyl-3-[(2-methyl-1*H*-imidazol-1-yl)methyl]-4*H*-carbazol-4-one hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₈H₁₉N₃O.HCl.1¼H₂O

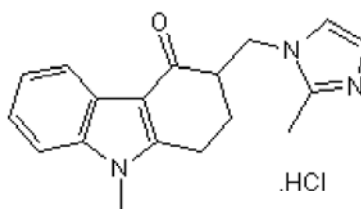
Batch Molecular Weight: 361.35

Physical Appearance: Off White solid

Solubility:
water to 50 mM
DMSO to 100 mM
ethanol to 25 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 100% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	59.83	6.55	11.63
Found	59.69	6.6	11.6

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Ondansetron hydrochloride is a selective 5-HT₃ receptor antagonist (K_i = 6.16 nM). Also an inhibitor of human multidrug and toxin extrusion (MATE) transporter 1 (IC₅₀ = <10-160 nM). Ondansetron blocks 5-HT-evoked transient inward currents (IC₅₀ = 0.1 nM) in human recombinant h5-HT_{3A} receptors. In an animal model of Parkinson's disease, Ondansetron reduces both the severity of dyskinesia and psychosis-like behaviors. Antiemetic; prevents emesis induced by cytotoxic drugs and radiation.

Physical and Chemical Properties:

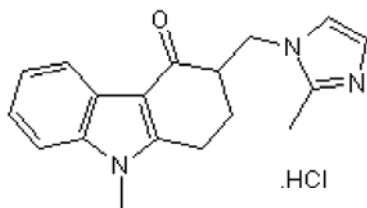
Batch Molecular Formula: C₁₈H₁₉N₃O.HCl.1³/₄H₂O

Batch Molecular Weight: 361.35

Physical Appearance: Off White solid

Minimum Purity: ≥99%

Batch Molecular Structure:



References:

Wittwer *et al* (2013) Discovery of potent, selective multidrug and toxin extrusion transporter 1 (MATE1, SLC47A1) inhibitors through prescription drug profiling and computational modeling. *J.Med.Chem.* **56** 781. PMID: 23241029.

Ginawi *et al* (2005) Ondansetron, a selective antagonist, antagonizes methamphetamine-induced anorexia in mice. *Pharmacol.Res.* **51** 255. PMID: 15661576.

Ye *et al* (2001) Ondansetron: a selective 5-HT₃ receptor antagonist and its applications in CNS-related disorders. *CNS Drug Rev.* **7** 199. PMID: 11474424.

Storage: Store at RT

Solubility & Usage Info:

water to 50 mM

DMSO to 100 mM

ethanol to 25 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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