

Product Data Sheet

Ondansetron-d₃ hydrochloride

Cat. No.: HY-B0002S

CAS No.: 1346605-02-4

Molecular Formula: C₁₈H₁₇D₃CIN₃O

Molecular Weight: 296.39

Target: 5-HT Receptor; Isotope-Labeled Compounds

Pathway: GPCR/G Protein; Neuronal Signaling; Others

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

BIOLOGICAL ACTIVITY

Description	Ondansetron- d_3 (hydrochloride) is the deuterium labeled Ondansetron hydrochloride. Ondansetron hydrochloride (GR 38032 hydrochloride) is a serotonin 5-HT3 receptor antagonist used mainly as anantiemetic (to treat nausea and vomiting), often following chemotherapy[1][2].
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.
- [2]. Brown AM, et al. Ion permeation and conduction in a human recombinant 5-HT3 receptor subunit (h5-HT3A). J Physiol. 1998 Mar 15;507 (Pt 3):653-65.
- [3]. Barann M, et al. Recombinant human 5-HT3A receptors in outside-out patches of HEK 293 cells: basic properties and barbiturate effects. Naunyn Schmiedebergs Arch Pharmacol. 2000 Sep;362(3):255-65.
- [4]. Wildeboer KM, et al. Ondansetron results in improved auditory gating in DBA/2 mice through a cholinergic mechanism. Brain Res. 2009 Dec 1;1300:41-50.
- [5]. Khedhaier A, et al. Circadian rhythms in toxic effects of the serotonin antagonist ondansetron in mice. Chronobiol Int. 2003 Nov;20(6):1103-16.
- [6]. Umathe SN, et al. The 5-HT3 receptor antagonist, ondansetron, blocks the development and expression of ethanol-induced locomotor sensitization in mice. Behav Pharmacol. 2009 Feb:20(1):78-83.
- [7]. Doggrell SA, et al. Cardiac safety concerns for ondansetron, an antiemetic commonly used for nausea linked to cancer treatment and following anaesthesia. Expert Opin Drug Saf. 2013 May;12(3):421-31.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

Tel: 609-228-6898 Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA

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