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Zuschläge

- Mindermengenzuschlag
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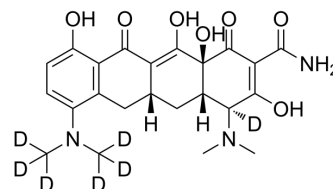
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Minocycline-d₇

Cat. No.:	HY-W654013
Molecular Formula:	C ₂₃ H ₂₀ D ₇ N ₃ O ₇
Molecular Weight:	464.52
Target:	Isotope-Labeled Compounds; Apoptosis; Potassium Channel; Antibiotic; Bacterial; MDM-2/p53; HIF/HIF Prolyl-Hydroxylase; Calcium Channel
Pathway:	Others; Apoptosis; Membrane Transporter/Ion Channel; Anti-infection; Metabolic Enzyme/Protease; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Minocycline-d₇ is deuterium labeled Minocycline. Minocycline is an orally active, potent and BBB-penetrated semi-synthetic tetracycline antibiotic. Minocycline is a hypoxia-inducible factor (HIF)-1 α inhibitor. Minocycline shows anti-cancer, anti-inflammatory, and glutamate antagonist effects. Minocycline reduces glutamate neurotransmission and shows neuroprotective properties and antidepressant effects. Minocycline inhibits bacterial protein synthesis through binding with the 30S subunit of the bacterial ribosome, resulting in a bacteriostatic effect^{[1][2][3][4][5][6][7][8]}.

REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019 Feb;53(2):211-216.
- [2]. Xu L, et al. Low dose intravenous minocycline is neuroprotective after middle cerebral artery occlusion-reperfusion in rats. *BMC Neurol*. 2004 Apr 26;4:7.
- [3]. Zhang L, et al. Protective effects of minocycline on behavioral changes and neurotoxicity in mice after administration of methamphetamine. *Prog Neuropsychopharmacol Biol Psychiatry*. 2006 Dec 30;30(8):1381-93.
- [4]. Pourgholami MH, et al. Minocycline inhibits growth of epithelial ovarian cancer. *Gynecol Oncol*. 2012 May;125(2):433-40.
- [5]. Molina-Hernández M, et al. Antidepressant-like actions of minocycline combined with several glutamate antagonists. *Prog Neuropsychopharmacol Biol Psychiatry*. 2008 Feb 15;32(2):380-6.
- [6]. Ritchie DJ, et al. A review of intravenous minocycline for treatment of multidrug-resistant *Acinetobacter* infections. *Clin Infect Dis*. 2014 Dec 1;59 Suppl 6:S374-80.
- [7]. Ataie-Kachoei P, et al. Minocycline attenuates hypoxia-inducible factor-1 α expression correlated with modulation of p53 and AKT/mTOR/p70S6K/4E-BP1 pathway in ovarian cancer: in vitro and in vivo studies. *Am J Cancer Res*. 2015 Jan 15;5(2):575-88.
- [8]. Hu X, Wu B, Wang X, Xu C, He B, Cui B, Lu Z, Jiang H. Minocycline attenuates ischemia-induced ventricular arrhythmias in rats. *Eur J Pharmacol*. 2011 Mar 11;654(3):274-9.

Caution: Product has not been fully validated for medical applications. For research use only.

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