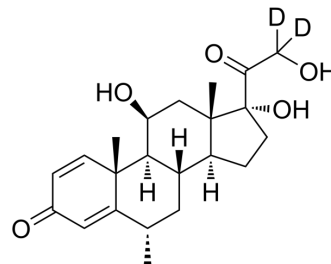


Methylprednisolone-d₂

Cat. No.:	HY-B0260S4
Molecular Formula:	C ₂₂ H ₂₈ D ₂ O ₅
Molecular Weight:	376.48
Target:	Glucocorticoid Receptor; Autophagy; SARS-CoV
Pathway:	Immunology/Inflammation; Vitamin D Related/Nuclear Receptor; Autophagy; Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Methylprednisolone-d ₂ is the deuterium labeled Methylprednisolone. Methylprednisolone is a synthetic corticosteroid with anti-inflammatory and immunomodulating properties. Methylprednisolone improve severe or critical COVID-19 by activating ACE2 and reducing IL-6 levels[3][4].
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]. Bracken, M.B., et al., A randomized, controlled trial of methylprednisolone or naloxone in the treatment of acute spinal-cord injury. Results of the Second National Acute Spinal Cord Injury Study. *N Engl J Med*, 1990. 322(20): p. 1405-11.
- [3]. Strupp, M., et al., Methylprednisolone, valacyclovir, or the combination for vestibular neuritis. *N Engl J Med*, 2004. 351(4): p. 354-61.
- [4]. Zhen Xiang, et al. Glucocorticoids improve severe or critical COVID-19 by activating ACE2 and reducing IL-6 levels. *Int J Biol Sci* 2020; 16(13):2382-2391.

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

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