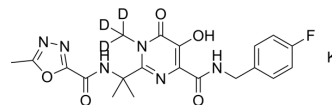


## Raltegravir-d<sub>3</sub> potassium

<b>Cat. No.:</b>	HY-10353AS
<b>CAS No.:</b>	1246816-98-7
<b>Molecular Formula:</b>	C <sub>20</sub> H <sub>18</sub> D <sub>3</sub> FKN <sub>6</sub> O <sub>5</sub>
<b>Molecular Weight:</b>	486.53
<b>Target:</b>	HIV Integrase; HIV; Isotope-Labeled Compounds
<b>Pathway:</b>	Metabolic Enzyme/Protease; Anti-infection; Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Raltegravir-d <sub>3</sub> (potassium) is the deuterium labeled Raltegravir potassium. Raltegravir (MK 0518) potassium is a potent integrase (IN) inhibitor, used to treat HIV infection[1][2].
<b>In Vitro</b>	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 <sup>[1]</sup> . 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]. Hare, S., et al., Molecular mechanisms of retroviral integrase inhibition and the evolution of viral resistance. *Proc Natl Acad Sci U S A*, 2010. 107(46): p. 20057-62.
- [3]. Lewis, M.G., et al. Response of a simian immunodeficiency virus (SIVmac251) to raltegravir: a basis for a new treatment for simian AIDS and an animal model for studying lentiviral persistence during antiretroviral therapy. *Retrovirology*, 2010. 7: p. 21.
- [4]. Hare S, et al. Structural and functional analyses of the second-generation integrase strand transfer inhibitor dolutegravir (S/GSK1349572). *Mol Pharmacol*. 2011 Oct;80(4):565-72.
- [5]. Moss DM, et al. Divalent metals and pH alter raltegravir disposition in vitro. *Antimicrob Agents Chemother*. 2012 Jun;56(6):3020-6
- [6]. Hicks C, et al. Raltegravir: the first HIV type 1 integrase inhibitor. *Clin Infect Dis*. 2009 Apr 1;48(7):931-9

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

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