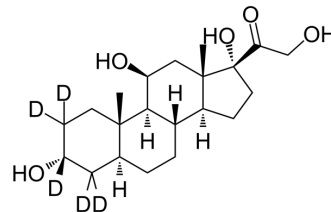


## Allotetrahydrocortisol-d5

Cat. No.:	HY-113215S
CAS No.:	2687961-06-2
Molecular Formula:	C <sub>21</sub> H <sub>29</sub> D <sub>5</sub> O <sub>5</sub>
Molecular Weight:	371.52
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Allotetrahydrocortisol-d5 is the deuterium labeled Allotetrahydrocortisol. Allotetrahydrocortisol (5a-Tetrahydrocortisol) is a metabolite of Cortisol. Cortisol is the main glucocorticoid in human. It is produced in adrenal cortex and plays a crucial role in many physiological processes <sup>[1][2]</sup> .
<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]. BUSH IE, et al. The excretion of allo tetrahydrocortisol in human urine. *Biochem J*. 1957 Dec;67(4):689-700.
- [3]. Kosicka K, et al. Detailed analysis of cortisol, cortisone and their tetrahydro- and allo-tetrahydrometabolites in human urine by LC-MS/MS. *J Pharm Biomed Anal*. 2017 Jun 5;140:174-181.

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

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