## **Product** Data Sheet

## Pregnanediol-d5

Cat. No.: HY-107850S Molecular Formula:  $C_{21}H_{31}D_5O_2$ Molecular Weight: 325.54

Target: Endogenous Metabolite

Pathway: Metabolic Enzyme/Protease

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

Analysis.

## **BIOLOGICAL ACTIVITY**

Description	Pregnanediol-d5 (NSC 1612-d5) is the deuterium labeled Pregnanediol. Pregnanediol is the major metabolite of progesterone and can be excreted via urine. Pregnanediol offers an indirect way to measure progesterone levels in vivo <sup>[1]</sup> .
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 <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]. H ROBERTSON, et al. Pregnanediol in the urine of the ewe. Nature. 1958 Nov 29;182(4648):1512-3.Sci Total Environ

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

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