## **Product** Data Sheet

## 1-Hydroxypyrene-d<sub>9</sub>

**Cat. No.:** HY-W014075S

CAS No.: 132603-37-3

Molecular Formula:  $C_{16}HD_9O$ 

Molecular Weight: 227.31

Pathway:

Target: Endogenous Metabolite

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

Analysis.

Metabolic Enzyme/Protease

## **BIOLOGICAL ACTIVITY**

Description	1-Hydroxypyrene-d <sub>9</sub> is the deuterium labeled 1-Hydroxypyrene[1]. 1-Hydroxypyrene, a biomarker of exposure to polycyclic aromatic hydrocarbons (PAHs), is analyzed in urine samples. 1-Hydroxypyrene is the major biomarker of exposure to pyrenes[2].
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**

 $[1]. \ Russak \ EM, et \ al. \ Impact \ of \ Deuterium \ Substitution \ on \ the \ Pharmacokinetics \ of \ Pharmaceuticals. \ Ann \ Pharmacother. \ 2019 \ Feb; 53(2): 211-216.$ 

[2]. Fernando Freitas, et al. Urinary 1-hydroxypyrene Is Associated With Oxidative Stress and Inflammatory Biomarkers in Acute Myocardial Infarction. Int J Environ Res Public Health

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

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