## **Product** Data Sheet

## Cabazitaxel-d<sub>6</sub>

 $\begin{array}{lll} \textbf{Cat. No.:} & & \text{HY-15459S} \\ \textbf{CAS No.:} & & 1383561-29-2 \\ \textbf{Molecular Formula:} & & \textbf{C}_{_{45}}\textbf{H}_{_{51}}\textbf{D}_{_{6}}\textbf{NO}_{_{14}} \\ \end{array}$ 

Molecular Weight: 841.97

Target: Microtubule/Tubulin; Autophagy

Pathway: Cell Cycle/DNA Damage; Cytoskeleton; Autophagy

Storage: Powder -20°C 3 years In solvent -80°C 6 months

-20°C 1 month

## **BIOLOGICAL ACTIVITY**

Description	$\label{lem:cabazitaxel} Cabazitaxel-d_6 is the deuterium labeled Cabazitaxel. Cabazitaxel is a semi-synthetic derivative of the natural taxoid 10-deacetylbaccatin III with potential antineoplastic activity [1][2].$
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;53(2):211-216.

[2]. Gdowski AS, et al. Bone-targeted cabazitaxel nanoparticles for metastatic prostate cancer skeletal lesions and pain. Nanomedicine (Lond). 2017 Sep;12(17):2083-2095.

[3]. Tai X, et al. Cabazitaxel and indocyanine green co-delivery tumor-targeting nanoparticle for improved antitumor efficacy and minimized drug toxicity. J Drug Target. 2016 Sep 9:1-29.

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

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