Product Data Sheet

Menadione-d₃

Cat. No.: HY-B0332S CAS No.: 5172-16-7 Molecular Formula: C₁₁H₅D₃O₂ Molecular Weight: 175.2

Target: **Endogenous Metabolite** Pathway: Metabolic Enzyme/Protease Storage: Powder -20°C 3 years

2 years -80°C In solvent 6 months

> -20°C 1 month

SOLVENT & SOLUBILITY

In Vitro

DMSO: ≥ 125 mg/mL (713.47 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	5.7078 mL	28.5388 mL	57.0776 mL
	5 mM	1.1416 mL	5.7078 mL	11.4155 mL
	10 mM	0.5708 mL	2.8539 mL	5.7078 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description $Menadione-d_{3}\ is\ the\ deuterium\ labeled\ Menadione.\ Menadione,\ a\ synthetic\ naphthoquinone,\ can\ be\ converted\ to\ active$ vitamin K2 in vivo.

> 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^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

In Vitro

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

2]. http://en.wikipedia.org/wiki/Menadione			

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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