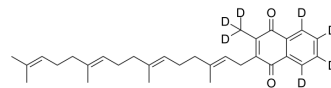


Menaquinone-4-d₇

Cat. No.:	HY-B2156S		
CAS No.:	1233937-25-1		
Molecular Formula:	C ₃₁ H ₃₃ D ₇ O ₂		
Molecular Weight:	451.69		
Target:	Endogenous Metabolite		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



BIOLOGICAL ACTIVITY

Description

Menaquinone-4-d₇ (Vitamin K₂(MK-4)-d₇) is the deuterium labeled Menaquinone-4. Menaquinone-4 is a vitamin K, used as a hemostatic agent, and also a adjunctive therapy for the pain of osteoporosis.

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^[1].
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]. Noda S, et al. Menaquinone-4 (vitamin K₂) up-regulates expression of human intestinal alkaline phosphatase in Caco-2 cells. *Nutr Res.* 2016 Nov;36(11):1269-1276.
- [3]. Kim M, et al. Vitamin K₁ (phyloquinone) and K₂ (menaquinone-4) supplementation improves bone formation in a high-fat diet-induced obese mice. *J Clin Biochem Nutr.* 2013 Sep;53(2):108-113.

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

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