Product Data Sheet

Vitamin B5-d₄ calcium

Cat. No.: HY-144243S

Molecular Formula: $\mathsf{C}_{18}\mathsf{H}_{24}\mathsf{D}_{8}\mathsf{CaN}_{2}\mathsf{O}_{10}$

Molecular Weight: 484.58

Target: Isotope-Labeled Compounds

Pathway: Others

Storage: 4°C, sealed storage, away from moisture

* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

SOLVENT & SOLUBILITY

In Vitro

H₂O: 44 mg/mL (90.80 mM; Need ultrasonic and warming)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.0636 mL	10.3182 mL	20.6364 mL
	5 mM	0.4127 mL	2.0636 mL	4.1273 mL
	10 mM	0.2064 mL	1.0318 mL	2.0636 mL

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

BIOLOGICAL ACTIVITY

Description	Vitamin B5-d ₄ (calcium) is the deuterium labeled Vitamin B5 calcium[1].	
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):211-223.

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

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