Product Data Sheet

25-Hydroxycholesterol-d₆

Cat. No.: HY-113134S CAS No.: 88247-69-2 Molecular Formula: $C_{27}H_{40}D_6O_2$

Molecular Weight: 408.69

Target: Endogenous Metabolite; Isotope-Labeled Compounds

Pathway: Metabolic Enzyme/Protease; Others

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

Analysis.

BIOLOGICAL ACTIVITY

Description	25-Hydroxycholesterol-d ₆ (25-OHC-d ₆) is the deuterium labeled 25-Hydroxycholesterol. 25-Hydroxycholesterol is a metabolite of cholesterol that is produced and secreted by macrophages in response to Toll-like receptor (TLR) activation. 25-hydroxycholesterol is a potent (EC50≈65 nM) and selective suppressor of IgA production by B cells[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 ^[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]. McDonald JG, et al. Editorial: 25-Hydroxycholesterol: a new life in immunology. J Leukoc Biol. 2010 Dec;88(6):1071-2.

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

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