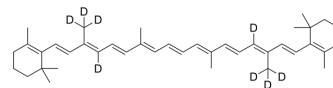


β-Carotene-d₈

Cat. No.:	HY-N0411S1
CAS No.:	53163-44-3
Molecular Formula:	C ₄₀ H ₄₈ D ₈
Molecular Weight:	544.92
Target:	Isotope-Labeled Compounds
Pathway:	Others
Storage:	-80°C, protect from light, stored under nitrogen



BIOLOGICAL ACTIVITY

Description	β-Carotene-d ₈ is the deuterium labeled β-Carotene (HY-N0411)[1].
In Vitro	<p>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].</p> <p>β-Carotene up-regulates PPAR-γ expression and ROS production in MCF-7 cancer cells^[4].</p> <p>β-Carotene (1-100 μM; 72 hours) remarkably decreases the survival of MCF-7 cells in a dose-dependent manner^[4].</p> <p>β-Carotene (50 μM; 24-72 hours) significantly enhances the expression levels of PPAR-γ mRNA and protein in a time-dependent manner^[4].</p> <p>β-Carotene down-regulates the COX-2 but up-regulates the p21 mRNA level and protein expression in a time dependent manner^[4].</p> <p>β-Carotene significantly increases the percentage of early apoptosis and the effect was partly attenuated by pre-incubation with GW9662 (HY-16578) or GSH (HY-D0187)^[4].</p> <p>β-Carotene induces cytochrome C release^[4].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-219.

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

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