Docosahexaenoic acid-$^{13}C_{22}$

Cat. No.: HY-B2167S1

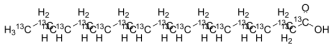
Molecular Formula: $^{13}C_{22}H_{32}O_2$

Molecular Weight: 350.33

Target: Endogenous Metabolite

Pathway: Metabolic Enzyme/Protease

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



BIOLOGICAL ACTIVITY

Description	Docosahexaenoic acid-$^{13}C_{22}$ is the ^{13}C labeled Docosahexaenoic acid[1]. Docosahexaenoic Acid (DHA) is an omega-3 fatty acid abundantly present brain and retina. It can be obtained directly from fish oil and maternal milk[2][3][4][5][6].
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 Feb;53(2):211-216.

[2]. Horrocks LA, et al. Health benefits of docosahexaenoic acid (DHA). Pharmacol Res. 1999 Sep;40(3):211-25.

[3]. Gharami K, et al. Essential role of docosahexaenoic acid towards development of a smarter brain. Neurochem Int. 2015 Oct89:51-62.

[4]. Lengqvist J, et al. Polyunsaturated fatty acids including docosahexaenoic and arachidonic acid bind to the retinoid Xreceptor alpha ligand-binding domain. Mol Cell Proteomics. 2004 Jul3(7):692-703.

[5]. Gamoh S, et al. Chronic administration of docosahexaenoic acid improves reference memory-related learning ability in young rats. Neuroscience. 199993(1):237-41.Ozsoy O, et al. The influence and the mechanism of docosahexaenoic acid on a mouse model of Parkinson's disease. Neurochem Int. 2011 Oct59(5):664-70.

[6]. Ozsoy O, et al. The influence and the mechanism of docosahexaenoic acid on a mouse model of Parkinson's disease. Neurochem Int. 2011 Oct59(5):664-70.

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