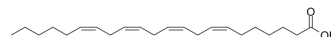


Adrenic acid

Cat. No.:	HY-W013215
CAS No.:	28874-58-0
Molecular Formula:	C ₂₂ H ₃₆ O ₂
Molecular Weight:	332.52
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	Solution, -20°C, 2 years



BIOLOGICAL ACTIVITY

Description	Adrenic Acid (cis-7,10,13,16-Docosatetraenoic acid) is a naturally polyunsaturated fatty acid in the adrenal gland, brain, kidney, and vasculature. Adrenic Acid can regulate the vascular tone in arteries of the adrenal cortex. Adrenic Acid also is an inflammation enhancer in non-alcoholic fatty liver disease ^{[1][2]} .
IC₅₀ & Target	Human Endogenous Metabolite
In Vitro	Adrenic acid is produced via the elongation of arachidonic acid by ELOVL2 and 5. Interestingly, the hepatic level of free Adrenic Acid (22:4n6) is markedly higher in the CDAHFD-fed db/db mice than in the SD-fed db/db mice. In plasma, the difference in the adrenic acid level reaches statistical significance (p<0.001). It is also found that the concentrations of phospholipid species containing Adrenic Acid, such as PC or PE (40:4) (containing side chain 18:0/22:4), and LPC 22:4 (sn-1/sn-2), are also significantly increased. (sn-1/sn-2). The hepatic and plasma levels of Adrenic Acid, which is an omega 6 polyunsaturated fatty acid (PUFA), exhibit greater differences between the CDAHFD-fed db/db mice and the SD-fed db/db mice (8.6-fold higher vs. 1.6-fold higher in liver tissue, 5.3-fold higher vs. 2.2-fold higher in plasma) than those of well-known proinflammatory PUFA, such as Arachidonic Acid ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. SautHoras H Nababan, et al. Adrenic acid as an inflammation enhancer in non-alcoholic fatty liver disease. Arch Biochem Biophys. 2017 Jun 1;623-624:64-75.
- [2]. Kopf PG, et, al. Adrenic acid metabolites as endogenous endothelium-derived and zona glomerulosa-derived hyperpolarizing factors. Hypertension. 2010 Feb;55(2):547-54.

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

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