

Retinol

Catalog No: tcsc0013091



Available Sizes

Size: 100mg



Specifications

CAS No:

68-26-8

Formula:

$C_{20}H_{30}O$

Pathway:

Metabolic Enzyme/Protease

Target:

Endogenous Metabolite

Purity / Grade:

>98%

Solubility:

10 mM in DMSO

Alternative Names:

Vitamin A1;all-trans-Retinol

Observed Molecular Weight:

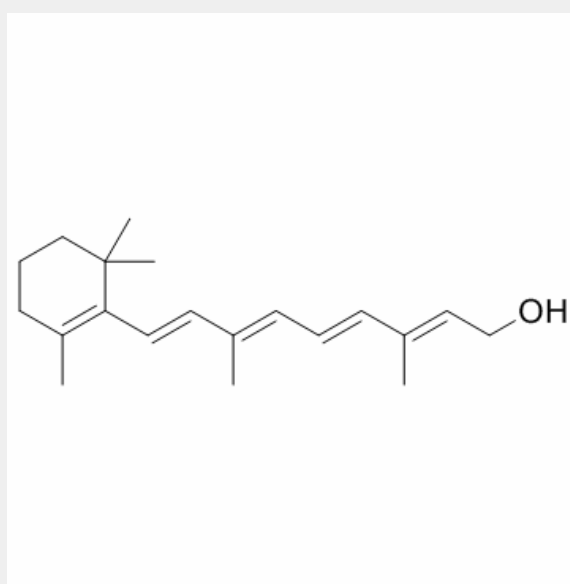
286.45

Product Description

Retinol, also known as Vitamin A1, has pleiotropic functions including vision, immunity, hematopoiesis, reproduction, cell differentiation/growth, and development.

In Vitro: It is found that contribution of hepatic microsomes (RDHs) to Retinol metabolism is greater than that of cytosol (ADHs), evidenced by higher Cl_{int} (V_{max}/K_m) of Retinol formation in microsomes than in cytosol^[1].

In Vivo: The results show that compare with control (CON) rats, high-fat diet (HFD) significantly lowers basal level of Retinol in plasma, but markedly elevates basal levels of Retinol in kidney, adipose tissue and liver. The results show that Retinol absorption in HFD rats is faster than that in CON rats, evidenced by significantly shorter T_{max} (3.0 ± 0.0 h for HFD rats vs 5.8 ± 1.1 h for CON rats, p[1]). The plasma Retinol levels in methionine-choline deficient diet (MCD) rats are significantly lower than in the controls while the hepatic Retinol levels in MCD rats are markedly higher. The hepatic expression of Retinol-metabolizing enzymes and binding proteins (GRBP-I, ALDH1A1, and ALDH1A2) in MCD rats is significantly higher than that in control rats^[2].



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