(±)-α-Tocopherol acetate

Cat. No.: HY-B1278B

CAS No.: 7695-91-2

Molecular Formula: $C_{31}H_{52}O_3$

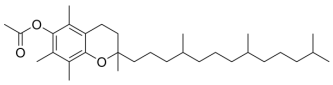
Molecular Weight: 472.74

Target: Biochemical Assay Reagents

Pathway: Others

Storage:

Pure form	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (211.53 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.1153 mL	10.5766 mL	21.1533 mL
	5 mM	0.4231 mL	2.1153 mL	4.2307 mL
	10 mM	0.2115 mL	1.0577 mL	2.1153 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: 2.5 mg/mL (5.29 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.5 mg/mL (5.29 mM); Suspended solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.29 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

(±)-α-Tocopherol acetate ((±)-Vitamin E acetate), is a orally active synthetic form of vitamin E. (±)-α-Tocopherol acetate is the ester of acetic acid and α-tocopherol. (±)-α-Tocopherol acetate can be used for the research of the susceptibility of farmed fish to infectious diseases[1].

In Vivo

(±)-α-Tocopherol acetate ((±)-Vitamin E acetate) (oral; 600 mg/kg, 1200 mg/kg, 1800 mg/kg; 15 d, 30 d and 45 d) exhibits significantly high complement activity[1].
(±)-α-Tocopherol acetate (oral; 600 mg/kg, 1200 mg/kg, 1800 mg/kg; 15 d, 30 d and 45 d) stimulates the seabream's non-

specific immune system after 30 days of administration in the diet (1200 mg/kg)[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Gilthead seabream (Sparus aurata L.)[1]
Dosage:	600 mg/kg, 1200 mg/kg, 1800 mg/kg
Administration:	oral; 600 mg/kg, 1200 mg/kg, 1800 mg/kg; 15 d,30 d and 45 d
Result:	Had a positive correlation with serum α-tocopherol levels and the increase being linked to both the dosage and length of use. Showed no enhancement in any of their immune parameters, while those fed the diet supplemented with 1200 mg/kg presented a slightly higher (but not statistically significant) specific growth rate than fish fed the other diets. Enhanced the serum haemolytic activity and the phagocytosis of head-kidney leucocytes by the dietary intake of 1200 mg/kg after 30 and 45 days, although leucocyte migration and respiratory burst activity remained unaffected. Provoked no immunostimulation in 1800 mg/kg.

REFERENCES

[1]. J Ortuño, et al. High dietary intake of alpha-tocopherol acetate enhances the non-specific immune response of gilthead seabream (Sparus aurata L.). Fish Shellfish Immunol. 2000 May;10(4):293-307

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