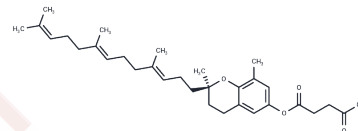


## δ-Tocotrienol prodrug-1

### Chemical Properties

CAS No. :	128254-90-0
Formula:	C31H44O5
Molecular Weight:	496.68
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



### Biological Description

Description	δ-Tocotrienolprodrug-1 (compound 5b) serves as a prodrug of δ-tocotrienol. This compound possesses radioprotective properties and aids in the regeneration of hematopoietic progenitor and stem cells in the bone marrow and spleen of mice.
Targets(IC50)	Others
In vivo	Upon administration of δ-Tocotrienol prodrug-1 (compound 5b) at 100 mg/kg via subcutaneous injection, a 90% survival rate was observed in mice over a 30-day period [1]. Pharmacokinetic parameters [1]: For 100 mg/kg (i.v./DT3) and 100 mg/kg (s.c./DT3) administrations, $t_{max}$ (h) was 0.083 and 0.67, $C_{max}$ (ng/ml) was $5.15 \times 10^5$ and $2.02 \times 10^3$ , $t_{1/2}$ (h) was 10.40 and 26.76, AUC (0-t) (h ng/mL) was $1.96 \times 10^5$ and $0.27 \times 10^5$ , AUC (0-∞) (h ng/mL) was $2.06 \times 10^5$ and $0.54 \times 10^5$ , CL (mL/h/kg) was 225.32, MRT (0-t) (h) was 1.36 and 11.89, MRT (0-∞) (h) was 3.47 and 38.38, V (dss) (mL/kg) was 336.58, and F % was 13.86. The animal model used was male C57BL/6J mice weighing 21-24 g [1]. The compound dosage was 100 mg/kg, administered subcutaneously once, 24 hours prior to total-body irradiation (TBI) of 8.5 Gy or 9.5 Gy. This resulted in a 90% survival rate at 30 days in mice.

### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0134 mL	10.0668 mL	20.1337 mL
5 mM	0.4027 mL	2.0134 mL	4.0267 mL
10 mM	0.2013 mL	1.0067 mL	2.0134 mL
50 mM	0.0403 mL	0.2013 mL	0.4027 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

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