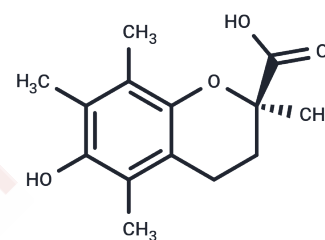


(R)-Trolox

Chemical Properties

CAS No. :	53101-49-8
Formula:	C ₁₄ H ₁₈ O ₄
Molecular Weight:	250.29
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	(R)-Trolox is a selective tyrosinase inhibitor, used in food, cosmetics, and pharmaceutical products.
Targets(IC50)	Tyrosinase
In vitro	(R)-Trolox is a powerful inhibitor of membrane damage that inhibits thymus cell apoptosis induced by oxidative stress. [1]
In vivo	Intravenous infusion of (R)-Trolox (2.5 mg/kg) can effectively improve tubular cell transformation, brush boundary loss, vacuolation, tubular formation and tubular obstruction in ischemia-reperfusion rats, and has renal protection against I/R injury. [2]

Solubility Information

Solubility	DMSO: 160 mg/mL (639.26 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (15.98 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.9954 mL	19.9768 mL	39.9537 mL
5 mM	0.7991 mL	3.9954 mL	7.9907 mL
10 mM	0.3995 mL	1.9977 mL	3.9954 mL
50 mM	0.0799 mL	0.3995 mL	0.7991 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.

Reference

Forrest VJ, et al. Oxidative stress-induced apoptosis prevented by Trolox. *Free Radic Biol Med.* 1994 Jun;16(6):675-84.

Wongmekiat O, Thamprasert K, Lumlertgul D. Renoprotective effect of trolox against ischaemia-reperfusion injury in rats. *Clin Exp Pharmacol Physiol.* 2007 Aug;34(8):753-9.

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