

## Trolox

## Chemical Properties

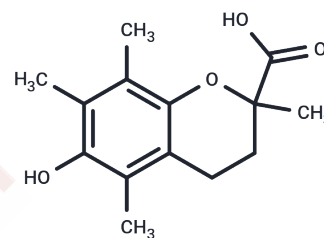
CAS No. : 53188-07-1

Formula: C<sub>14</sub>H<sub>18</sub>O<sub>4</sub>

Molecular Weight: 250.29

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



## Biological Description

Description	Trolox is a vitamin E analogue, used in reducing oxidative stress or damage.
Targets(IC50)	Apoptosis,Antioxidant,Ferroptosis,Reactive Oxygen Species
In vitro	<p><b>METHODS:</b> Human cervical cancer cells HeLa were treated with Trolox (2.5-160 <math>\mu</math>M) for 24 h and cell viability was measured using MTT assay.</p> <p><b>RESULTS:</b> Cell viability decreased dose-dependently, with the maximum effect observed at 160 <math>\mu</math>M Trolox. [1]</p> <p><b>METHODS:</b> Human skin fibroblasts were treated with Trolox (0.5 mM) for 96 h. The expression levels of target proteins were measured by Western Blot.</p> <p><b>RESULTS:</b> Trolox increased the mitochondrial levels of Mfn2 in primary human skin fibroblasts without affecting these levels of Drp1 and hFis1. [2]</p>
In vivo	<p><b>METHODS:</b> To investigate the neuroprotective effects, Trolox (50 mg/kg) was intraperitoneally injected once a day for ten days into an MPTP-induced Parkinson's disease mouse model.</p> <p><b>RESULTS:</b> Trolox may exert neuroprotective effects on dopaminergic neurons against MPTP-induced oxidative stress, neuroinflammation, motor dysfunction and neurodegeneration. [3]</p>

## Solubility Information

Solubility	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (19.98 mM),Solution. DMSO: 50 mg/mL (199.77 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## 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.

## Reference

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