



Catalog Number:	MC11027	Product Type:	Small Molecule
Bio-Activity:	Antioxidant, water soluble	CAS #:	53188-07-1
Research Categories:	Cell death, cellular stress, neuroscience	Chemical Name:	6-Hydroxy-2,5,7,8-tetramethylchroman-2-carboxylic acid
Solubility:	Soluble in DMSO (25 mg/ml); or ethanol (25 mg/ml); or water at alkaline pH	Molecular Formula:	C14H18O4
Purity:	> 98%	Molecular Weight:	250.30
Format:	Powder	Ship Temp:	Ambient
Storage:	Room Temperature		

Application Notes

Description/Data:

Trolox is a water soluble derivative of vitamin E with potent antioxidant and radical scavenging activities (1). In Hep G2 cells, it stops lipid peroxidation induced by CYP2E1 (2). Trolox also inhibits peroxynitrite-mediated oxidative stress and apoptosis in rat thymocytes (3). It decreases the amount of impaired proliferation of oxidatively stressed myoblasts overexpressing parkin interacting substrate (PARIS/ZNF746) (4). It has been used to compare the antioxidant capacity of other compounds (5) and reference standard for determination of "trolox equivalents" (6).

References:

- 1) KD Massey et al. *Free Radic. Biol. Med.* 1990 8:449
- 2) Q Chen et al. *Mol. Pharmacol.* 1998 53:638
- 3) MG Salgo and WA Pryor *Arch. Biochem. Biophys.* 1996 333:482
- 4) J-H Bae et al. *Cell Death Dis.* 2020 11:359
- 5) H Muñoz et al. *Arch. Med. Sci.* 2020 16:871

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