

Trolox

Catalog Number :5310710

RUO: For Research Use Only. Not for use in diagnostic procedures.

Product Information

Synonyms: 6-Hydroxy-2,5,7,8-tetramethylchroman-2-carboxylic acid

Chemical Name:

6-hydroxy-2,5,7,8-tetramethyl-3,4-dihydrochromene-2-carboxylic acid

Molecular Formula: C₁₄H₁₈O₄

Molecular Weight: 250.3

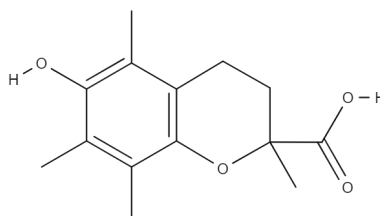
CAS Number: 53188-07-1

Purity: ≥98%

Applications: FA

Formulation: Crystalline solid

Storage: Product should be kept at -20°C.



Description

Trolox is a hydrophilic and cell-permeable analog of vitamin E. It is a potent antioxidative used in biochemical applications to reduce oxidative stress and is the standard antioxidant used in antioxidant capacity assays. Trolox has been reported to enhance cardiac differentiation of human pluripotent stem cells and inhibit osteolytic bone metastasis through PGE2-dependent and independent mechanisms.

Preparation & Storage

Soluble in organic solvents such as ethanol or DMSO up to 20mg/ml and in PBS up to 3mg/ml.

References

1. Lee, J. H., Kim, B., Jin, W. J., Kim, J. W., Kim, H. H., Ha, H., Lee, Z. H. (2014). Trolox inhibits osteolytic bone metastasis of breast cancer through both PGE2-dependent and independent mechanisms. *Biochemical pharmacology*, 91(1), 51-60.
2. Forrest, V. J., Kang, Y. H., McClain, D. E., Robinson, D. H., Ramakrishnan, N. (1994). Oxidative stress-induced apoptosis prevented by Trolox. *Free Radical Biology and Medicine*, 16(6), 675-684.
3. Choe, M. S., Yeo, H. C., Bae, C. M., Han, H. J., Baek, K. M., Kim, J. S., ... Lee, M. Y. (2019). Trolox-induced cardiac differentiation is mediated by the inhibition of Wnt/ β -catenin signaling in human embryonic stem cells. *Cell Biology International*, 43(12), 1505-1515.