
Product Data Sheet

Product Name: Tetrahydroxyquinone (Tetrahydroxy-1,4-benzoquinone)

Cat. No.: GC34115

Chemical Properties

Cas. No. 319-89-1

SMILES O=C1C(O)=C(O)C(C(O)=C1O)=O

Formula C6H4O6

M.Wt 172.09

Solubility DMSO : ≥ 1.8 mg/mL (10.46 mM)

Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

Background

Tetrahydroxyquinone is a redox-active hydroxyquinone.^{1,2} It inhibits HIV-1 proteinase (IC₅₀ = 575 μ M) and is active against *T. brucei brucei* (MIC₁₀₀ = 100 μ g/ml).^{1,3} Tetrahydroxyquinone (100 μ M) induces the formation of reactive oxygen species (ROS) in, as well as apoptosis of, HL-60 leukemia cells.² It has also been used in the manufacturing of lithium-ion batteries.⁴

1.Brinkworth, R.I., and Fairlie, D.P. Hydroxyquinones are competitive non-peptide inhibitors of HIV-1 proteinase *Biochim. Biophys. Acta* 1253(1)5-8(1995) 2.Cavagis, A.D.M., Ferreira, C.V., Versteeg, H.H., et al. Tetrahydroxyquinone induces apoptosis of leukemia cells through diminished survival signaling *Exp. Hematol.* 34(2)188-196(2006) 3.Shapiro, A., Nathan, H.C., Hutner, S.H., et al. In vivo and in vitro activity by diverse chelators against *Trypanosoma brucei brucei*. *Protozool.* 29(1)85-90(1982) 4.Chen, H., Armand, M., Courty, M., et al. Lithium salt of tetrahydroxybenzoquinone: Toward the development of a sustainable Li-ion battery. *J. Am. Chem. Soc.* 131(25)8984-8988(2009)

Caution: Product has not been fully validated for medical applications. For research use only.

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