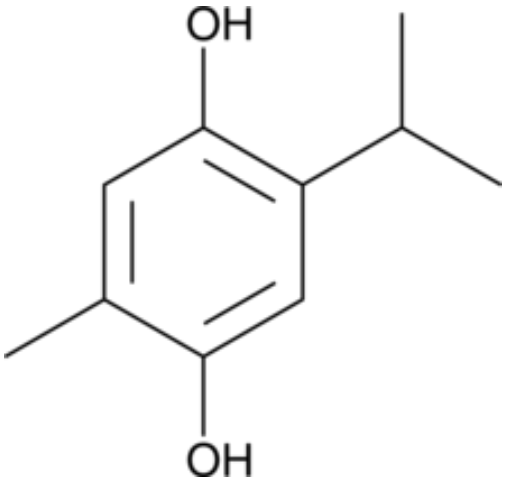
Product Data Sheet

Product Name: Thymohydroquinone
Cat. No.: GC45578

Chemical Properties

Cas. No.	2217-60-9		
SMILES	CC(C)C1=C(O)C=C(C)C(O)=C1		
Formula	C10H14O2	M.Wt	166.2
Solubility	DMF: 1 mg/mL,DMSO: 1 mg/mL,Ethanol: 2 mg/mL,Ethanol:PBS (pH 7.2) (1:9): 0.1mg/mL	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

Thymohydroquinone is a quinone that has been found in N. sativa seeds and has diverse biological activities.1,2 It scavenges 2,2-diphenyl-1-picrylhydrazyl free radicals in a cell-free assay (IC50 = 2.4 µg/ml) and has a Trolox equivalent value of 2.6 in an oxygen radical absorbance capacity (ORAC) assay when used at concentrations ranging from 1.6 to 6.4 µg/ml.1 Thymohydroquinone inhibits

Caution: Product has not been fully validated for medical applications. For research use only.
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growth of A2780, OVCAR-8, and CIS-A2780 ovarian cancer cells (IC50s = 3.1, 8.9, and 9.8 μM, respectively), as well as immortalized human ovarian epithelial cells (IC50 = 14 μM).2 It is also active against P. falciparum in vitro (IC50 = 15.9 μM).

References

1. Tesarova, H., Svobodova, B., Kokoska, L., et al. Determination of oxygen radical absorbance capacity of black cumin (Nigella sativa) seed quinone compounds. Nat. Prod. Commun. 6(2), 213-216 (2011).
2. Johnson-Ajinwo, O.R., Ullah, I., Mbye, H., et al. The synthesis and evaluation of thymoquinone analogues as anti-ovarian cancer and antimalarial agents. Bioorg. Med. Chem. Lett. 28(7), 1219-1222 (2018).