

Product Data Sheet

Product Name: DTPD-Q
Cat. No.: GC91590

Chemical Properties

Cas. No. 252950-56-4

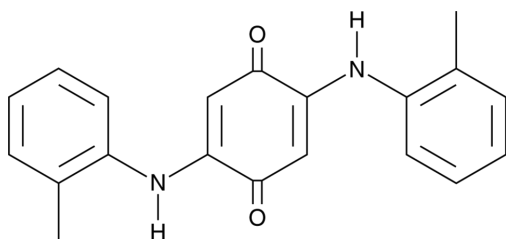
Formula $C_{20}H_{18}N_2O_2$ M.Wt 318.4

Solubility DMSO: Slightly soluble: 0.1-1 mg/ml, Ethanol: Slightly soluble: 0.1-1 mg/ml, PBS (pH 7.2): Slightly soluble: 0.1-1 mg/ml
Storage -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

DTPD-Q is an oxidized derivative of the antioxidant and methylphenyl substituted *p*-phenylenediamine DTPD.¹ It is an inhibitor of dynamin 1 ($IC_{50} = 273 \mu M$) and reduces clathrin-mediated endocytosis in serum-starved U2OS cells ($IC_{50} = 120 \mu M$). DTPD-Q is less toxic to the aquatic bacterium *V. fischeri* than DTPD ($EC_{50} = 1.98 \text{ mg/L}$).² It increases intestinal permeability of, and production of reactive oxygen species (ROS) in, *C. elegans* when used at concentrations of 1 or 10 $\mu g/ml$.³ DTPD-Q has been found in roadway runoff water and roadside soils, indoor dust, as well as consumer products made from recycled tire rubber.^{4,5,6}

References:

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

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