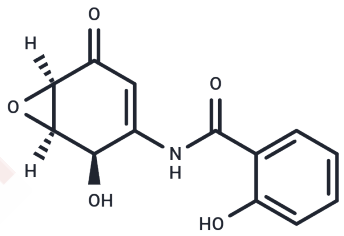
Data Sheet (Cat.No.T13462)

TargetMol

(+)-DHMEQ

Chemical Properties



CAS No. : 287194-41-6

Formula: C13H11NO5

Molecular Weight: 261.23

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	(+)-DHMEQ is an antioxidant transcription factor Nrf2 activator. (+)-DHMEQ is the enantiomer of (-)-DHMEQ.
Targets(IC50)	Others,Nrf2
In vitro	(+)-DHMEQ activates Nrf2, a transcription factor that can induce the expression of various antioxidant enzymes. (+)-DHMEQ activates Nrf2 in promoter reporter gene analysis. (+)-DHMEQ also increases the expression of target antioxidant proteins in nerve cell lines and eliminates reactive oxygen species (ROS)-induced cell death. ROS generating 6-hydroxydopamine hydrochloride (6-OHDA) induces the death of SK-N-SH cells, and (+)-DHMEQ decreases the cytotoxic effect of 6-OHDA, whereas its effect is weaker in Nrf2-knockdown cells prepared with siRNA. Thus, enhancement of the neural cell viability by (+)-DHMEQ is due to the activation of Nrf2.

Solubility Information

Solubility	DMSO: 100 mg/mL (382.8 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 3.3 mg/mL (12.63 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.828 mL	19.1402 mL	38.2804 mL
5 mM	0.7656 mL	3.828 mL	7.6561 mL
10 mM	0.3828 mL	1.914 mL	3.828 mL
50 mM	0.0766 mL	0.3828 mL	0.7656 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Niitsu Y, et al. Chemoenzymatic synthesis of (2R,3R,4R)-dehydroxymethylepoxyquinomicin (DHMEQ), a newactivator of antioxidant transcription factor Nrf2. Org Biomol Chem. 2011 Jun 21;9(12):4635-41.