

Antioxidant agent-3

Chemical Properties

CAS No. :

Formula: C₁₈H₁₄O₈

Molecular Weight: 358.3

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	Antioxidant agent-3 (Compound 14q), a potent antioxidant, exhibits strong scavenging activity against DPPH radicals and ABTS+ radicals with IC ₅₀ values of 26.58 μM and 30.31 μM, respectively. Additionally, it enhances levels of reactive oxygen species (ROS), superoxide dismutase (SOD), and glutathione (GSH), while diminishing lactate dehydrogenase (LDH) in H ₂ O ₂ -treated HepG2 cells [1].
Targets(IC ₅₀)	Others,Reactive Oxygen Species
In vitro	Antioxidant agent-3 (Compound 14q) demonstrates significant efficacy in scavenging DPPH and ABTS+ radicals with IC ₅₀ values of 26.58 μM and 30.31 μM, respectively. It exhibits low cytotoxicity towards human WI-38 (IC ₅₀ > 100 μM) and GES (IC ₅₀ > 200 μM) cells, indicating a favorable safety profile. Antioxidant agent-3 enhances viability and reduces apoptosis in H ₂ O ₂ -damaged HepG2 cells by decreasing ROS production and LDH release while improving GSH and SOD levels. These effects, coupled with its increased stability in methanol solution, underscore its potential as a therapeutic antioxidant. Assays, including cytotoxicity in WI-38 and GES cell lines and viability in H ₂ O ₂ -injured WI-38 and HepG2 cells, demonstrate reduced toxicity, enhanced cell viability, and protection against apoptosis and cellular damage.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.791 mL	13.9548 mL	27.9096 mL
5 mM	0.5582 mL	2.791 mL	5.5819 mL
10 mM	0.2791 mL	1.3955 mL	2.791 mL
50 mM	0.0558 mL	0.2791 mL	0.5582 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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