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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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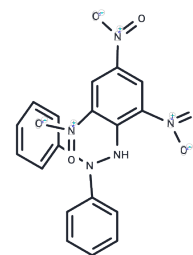
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DPPH

Chemical Properties

CAS No. :	1898-66-4
Formula:	C ₁₈ H ₁₂ N ₅ O ₆
Molecular Weight:	394.32
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	DPPH (2,2-Diphenyl-1-picrylhydrazyl) is a stable nitrogen-centered radical that can be used to measure the free radical scavenging activity of antioxidants. DPPH has a single electron, so it can accept either an electron or a hydrogen ion, and has a maximum absorption at a wavelength of 517 nm.
Targets(IC50)	Others
In vitro	<p>METHODS: PNT2 cells were treated with DPPH (156-5000 μM) for 24 h. Cell viability was measured by MTT assay.</p> <p>RESULTS: DPPH at 625 μM and lower concentrations had no significant cytotoxic effect on the cells. On the contrary, DPPH induced a decrease in viable cells in a dose-dependent manner of 56%, 23% and 15% at 1250, 2500 and 5000 μM, respectively. the IC₅₀ of DPPH was 1400 μM.[1]</p> <p>METHODS: DPPH assay for antioxidant capacity of compounds:</p> <ol style="list-style-type: none"> 1. 75 μM methanol solution of DPPH was prepared. Samples were diluted and analyzed at three different final concentrations of 1-10 μM. 2. A 50 μL volume of each sample solution was added to 0.95 0mL of DPPH solution and placed in the dark. 3. 3. After 30 min, measure the absorbance of the samples at λ=517nm. 4. 4. The percentage inhibition of DPPH was plotted versus antioxidant concentration, and the IC₅₀ value, and the antiradical activity (ARA) as the inverse of the IC₅₀ were calculated. [2]
In vivo	<p>METHODS: To study the hepatotoxic effects, DPPH (100 mg/kg) was administered intraperitoneally to ICR mice to induce acute liver injury, and the mice were killed 12, 24, 48 and 72 h after treatment to obtain serum and liver.</p> <p>RESULTS: DPPH increased aminotransferase activity, MDA and NO levels, and significantly decreased GSH levels and SOD, CAT and GPx activities. The livers of DPPH-treated mice showed significant histopathological changes characterized by hepatocyte swelling and vacuolar degeneration. The mRNA levels of proinflammatory cytokines were elevated in the DPPH-treated group. The above results suggest that DPPH induces acute hepatotoxicity in mice. [3]</p>

Solubility Information

A DRUG SCREENING EXPERT

Solubility	DMSO: 24 mg/mL (60.86 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.536 mL	12.6801 mL	25.3601 mL
5 mM	0.5072 mL	2.536 mL	5.072 mL
10 mM	0.2536 mL	1.268 mL	2.536 mL
50 mM	0.0507 mL	0.2536 mL	0.5072 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.

Reference

Qin Z, Zou Y, Zhang Y, et al. Electrospun pullulan nanofiber loading zanthoxylum bungeanum essential oil/ β -cyclodextrin inclusion complexes for active packaging. International Journal of Biological Macromolecules. 2022

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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