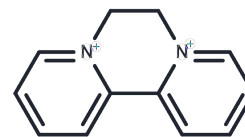


Diquat dibromide

Chemical Properties

CAS No. :	85-00-7
Formula:	C ₁₂ H ₁₂ Br ₂ N ₂
Molecular Weight:	344.05
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>

Br⁻ Br⁻

Biological Description

Description	Diquat dibromide is a water-soluble herbicide that causes rapid and profound systemic toxicity. Diquat dibromide induces acute kidney injury with high lethality. 3-Phosphoglyceric acid has been shown to be effective in the treatment of LPS-induced ALI.
Targets(IC50)	Others, Mitochondrial Metabolism, Autophagy, ROS

Solubility Information

Solubility	DMSO: 22.73 mg/mL (66.07 mM), Sonication is recommended. Ethanol: < 1 mg/mL (slightly soluble) (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 2.27 mg/mL (6.6 mM), Solution. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.9066 mL	14.5328 mL	29.0655 mL
5 mM	0.5813 mL	2.9066 mL	5.8131 mL
10 mM	0.2907 mL	1.4533 mL	2.9066 mL
50 mM	0.0581 mL	0.2907 mL	0.5813 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

- Acar A. In vivo toxicological assessment of diquat dibromide: cytotoxic, genotoxic, and biochemical approach. *Environ Sci Pollut Res Int.* 2021;28(34):47550-47561.
- Hu P, et al. A SERS-based point-of-care testing approach for efficient determination of diquat and paraquat residues using a flexible silver flower-coated melamine sponge. *Food Chem.* 2024 Oct 1;454:139831.
- Sun YX, et al. Ratiometric emission of Tb(III)-functionalized Cd-based layered MOFs for portable visual detection of trace amounts of diquat in apples, potatoes and corn. *Food Chem.* 2024 Aug 15;449:139259.
- Cheng J, et al. Diquat causes mouse testis injury through inducing heme oxygenase-1-mediated ferroptosis in spermatogonia. *Ecotoxicol Environ Saf.* 2024 Jul 15;280:116562.

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