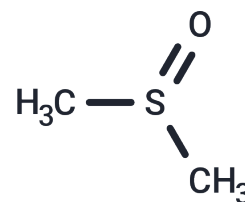


Dimethyl sulfoxide

Chemical Properties

CAS No. :	67-68-5
Formula:	C ₂ H ₆ O _S
Molecular Weight:	78.13
Storage:	Store at RT Actual storage temperature shall be subject to the COA.



Biological Description

Description	Dimethyl sulfoxide (DMSO) is a commonly used solvent to dissolve polar and non-polar compounds. Dimethyl sulfoxide has been widely used for masterbatch preparation of compounds in biological experiments. Dimethyl sulfoxide has bacteriostatic activity.
Targets(IC50)	Antibacterial, Cholinesterase (ChE)
In vitro	METHODS: Human colorectal cancer cells HCT-116 and SW-480 were treated with Dimethyl sulfoxide (0.1%-1.5%) for 24 h, and cell viability was measured by MTT. RESULTS: Dimethyl sulfoxide showed a dose-dependent effect on cell proliferation. Cells treated with 1.5% Dimethyl sulfoxide showed about 10% reduction in cell growth. [1]
In vivo	METHODS: To detect toxicity, Dimethyl sulfoxide (10%-100%) was administered to Swiss mice by single intraperitoneal injection for five days. RESULTS: The LD50 increased with decreasing concentration and the LD50 values for 10%, 25%, 50%, 75%, and 100% Dimethyl sulfoxide were >10.1, 15.4, 13.3, 11.9, and 10.9 g/kg, respectively. [2]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	12.7992 mL	63.9959 mL	127.9918 mL
5 mM	2.5598 mL	12.7992 mL	25.5984 mL
10 mM	1.2799 mL	6.3996 mL	12.7992 mL
50 mM	0.256 mL	1.2799 mL	2.5598 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

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- Guo L, Wu Z. FOXM1-mediated NUF2 expression confers temozolomide resistance to human glioma cells by regulating autophagy via the PI3K/AKT/mTOR signaling pathway. *Neuropathology.* 2022
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