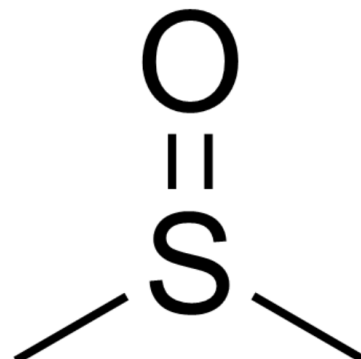


Data Sheet

Product Name:	Dimethyl sulfoxide
Cat. No.:	CS-B1637
CAS No.:	67-68-5
Molecular Formula:	C ₂ H ₆ OS
Molecular Weight:	78.13
Target:	Bacterial; Cholinesterase (ChE)
Pathway:	Anti-infection; Neuronal Signaling
Solubility:	10 mM in DMSO



BIOLOGICAL ACTIVITY:

Dimethyl sulfoxide (DMSO) is an aprotic solvent that dissolves polar and non-polar compounds, including water-insoluble therapeutic and toxic agents. Dimethyl sulfoxide (DMSO) has a strong affinity for water and can rapidly penetrate or enhance the penetration of other substances into biological membranes. Dimethyl sulfoxide also has potential free radical scavenging and anticholinesterase effects and may affect coagulation activity. Dimethyl sulfoxide also induces histamine release from mast cells but is thought to have low systemic toxicity. Dimethyl sulfoxide also exhibits antifreeze and antibacterial properties^{[1][2][3]}.

In Vitro: DMSO is an organic solvent that is freely miscible with water, lipids and organic agents. These properties allow for exceptional membrane penetration. The mechanism of action of DMSO is thought to be a combination of anti-inflammatory effects, nerve blockade, smooth muscle relaxation, and collagen inhibition^[2].

DMSO (HY-Y0320) can be used for compound dissolution, and is not recommended for cell cryopreservation.

References:

[1]. C F Brayton. Dimethyl sulfoxide (DMSO): a review. Cornell Vet. 1986 Jan;76(1):61-90.

[2]. William F Rawls, et al. Dimethyl sulfoxide (DMSO) as intravesical therapy for interstitial cystitis/bladder pain syndrome: A review. NeuroUrol Urodyn. 2017 Sep;36(7):1677-1684.

[3]. Brayton CF. Dimethyl sulfoxide (DMSO): a review. Cornell Vet. 1986 Jan;76(1):61-90., et al. Dimethyl sulfoxide (DMSO): a review. Cornell Vet. 1986 Jan;76(1):61-90.

CAIndexNames:

Methane, 1,1'-sulfinylbis-

SMILES:

O=S(C)C

Caution: Product has not been fully validated for medical applications. For research use only.

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