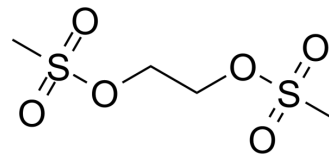


## Ethylene dimethanesulfonate

<b>Cat. No.:</b>	HY-129524		
<b>CAS No.:</b>	4672-49-5		
<b>Molecular Formula:</b>	C <sub>4</sub> H <sub>10</sub> O <sub>6</sub> S <sub>2</sub>		
<b>Molecular Weight:</b>	218.25		
<b>Target:</b>	Apoptosis		
<b>Pathway:</b>	Apoptosis		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 100 mg/mL (458.19 mM; Need ultrasonic)			
		Solvent Concentration	Mass	
			1 mg	5 mg
			10 mg	
<b>Preparing Stock Solutions</b>	<b>1 mM</b>	4.5819 mL	22.9095 mL	45.8190 mL
	<b>5 mM</b>	0.9164 mL	4.5819 mL	9.1638 mL
	<b>10 mM</b>	0.4582 mL	2.2910 mL	4.5819 mL
Please refer to the solubility information to select the appropriate solvent.				
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 2.5 mg/mL (11.45 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (11.45 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 2.5 mg/mL (11.45 mM); Clear solution</li> </ol>			

### BIOLOGICAL ACTIVITY

<b>Description</b>	Ethylene dimethane sulfonate is a mild alkylating, non-volatile methanesulfonic diester of ethylene glycol. Ethylene dimethanesulfonate has selective pro-apoptotic effects on LCs <sup>[1]</sup> .
<b>In Vivo</b>	Ethylene dimethanesulfonate (subcutaneous injection; 75 mg/kg; 7 days) disrupts epididymal function and leads to sperm granuloma formation in rat <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## REFERENCES

[1]. Dutta D, et al. Ethylene dimethane sulfonate (EDS) ablation of Leydig cells in adult rat depletes testosterone resulting in epididymal sperm granuloma: Testosterone replacement prevents granuloma formation. *Reprod Biol.* 2019 Mar;19(1):89-99.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA