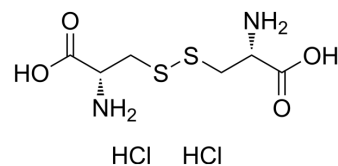


L-Cystine dihydrochloride

Cat. No.:	HY-W009203
CAS No.:	30925-07-6
Molecular Formula:	C ₆ H ₁₄ Cl ₂ N ₂ O ₄ S ₂
Molecular Weight:	313.22
Target:	Others
Pathway:	Others
Storage:	4°C, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (159.63 mM; Need ultrasonic)																								
	Preparing Stock Solutions	<table border="1"> <thead> <tr> <th rowspan="2">Solvent</th> <th rowspan="2">Mass</th> <th colspan="3">Concentration</th> </tr> <tr> <th>1 mg</th> <th>5 mg</th> <th>10 mg</th> </tr> </thead> <tbody> <tr> <td>1 mM</td> <td>3.1926 mL</td> <td>15.9632 mL</td> <td>31.9264 mL</td> </tr> <tr> <td>5 mM</td> <td>0.6385 mL</td> <td>3.1926 mL</td> <td>6.3853 mL</td> </tr> <tr> <td>10 mM</td> <td>0.3193 mL</td> <td>1.5963 mL</td> <td>3.1926 mL</td> </tr> </tbody> </table>	Solvent	Mass	Concentration			1 mg	5 mg	10 mg	1 mM	3.1926 mL	15.9632 mL	31.9264 mL	5 mM	0.6385 mL	3.1926 mL	6.3853 mL	10 mM	0.3193 mL	1.5963 mL	3.1926 mL			
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Please refer to the solubility information to select the appropriate solvent.																									
In Vivo	1. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 1.25 mg/mL (3.99 mM); Clear solution																								

BIOLOGICAL ACTIVITY

Description	L-Cystine dihydrochloride can be used as a cell culture component and is a sulfur-containing precursor of glutathione (GSH) synthesis. L-Cystine dihydrochloride homeostasis is also important for GSH functions ^{[1][2]} .
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REFERENCES

- [1]. Pader I, et al. Thioredoxin-related protein of 14 kDa is an efficient L-cystine reductase and S-denitrosylase. Proc Natl Acad Sci U S A. 2014 May 13;111(19):6964-9.
- [2]. Xiaojun Lian. Serum-free human pluripotent stem cell culture medium. Patent WO2021094826 A1.

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

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