L-Cystine dihydrochloride

Cat. No.: HY-W009203

CAS No.: 30925-07-6

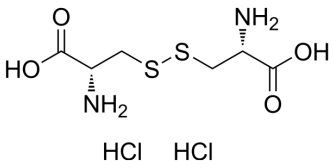
Molecular Formula: $C_6H_{14}Cl_2N_2O_4S_2$

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

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

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].

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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