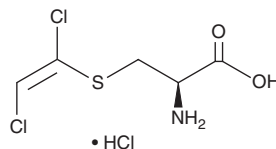


PRODUCT INFORMATION

S-(1,2-Dichlorovinyl)-Cysteine (hydrochloride)

Item No. 33894

CAS Registry No.: 2508026-62-6
Formal Name: S-(1,2-dichloroethenyl)-L-cysteine, monohydrochloride
Synonyms: S-(1,2-dichlorovinyl)-L-Cysteine, S-(*trans*-1,2-dichlorovinyl)-L-Cysteine, DCVC
MF: C₅H₇Cl₂NO₂S • HCl
FW: 252.5
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

S-(1,2-Dichlorovinyl)-cysteine (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the S-(1,2-dichlorovinyl)-cysteine (hydrochloride) in the solvent of choice, which should be purged with an inert gas. S-(1,2-Dichlorovinyl)-cysteine (hydrochloride) is soluble in organic solvents such as methanol and DMSO. It is also soluble in water. We do not recommend storing the aqueous solution for more than one day.

Description

S-(1,2-Dichlorovinyl)-cysteine is a nephrotoxin and metabolite of trichloroethylene.¹⁻³ It is formed via a dichlorovinyl glutathione intermediate and its subsequent cleavage by dipeptidase.¹ S-(1,2-Dichlorovinyl)-cysteine (1 mM) is cytotoxic to isolated human renal proximal tubule cells. It increases urine levels of N-acetyl-β-D-glucosaminidase, total protein, and glucose in rabbits when administered at a dose of 10 mg/kg.² S-(1,2-Dichlorovinyl)-cysteine induces renal necrosis and lethality in rats (LD₅₀ = 66-83 mg/kg).³

References

1. Cummings, B.S. and Lash, L.H. Metabolism and toxicity of trichloroethylene and S-(1,2-dichlorovinyl)-L-cysteine in freshly isolated human proximal tubular cells. *Toxicol. Sci.* **53**(2), 458-466 (2000).
2. Davis, J.W., Blakeman, D.P., Jolly, R.A., et al. S-(1,2-dichlorovinyl)-L-cysteine-induced nephrotoxicity in the New Zealand white rabbit: Characterization of proteinuria and examination of the potential role of oxidative injury. *Toxicol. Pathol.* **23**(4), 487-497 (1995).
3. Terracini, B. and Parker, V.H. A pathological study on the toxicity of S-dichlorovinyl-L-cysteine *Food Cosmet. Toxicol.* **3**, 67-74 (1965).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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