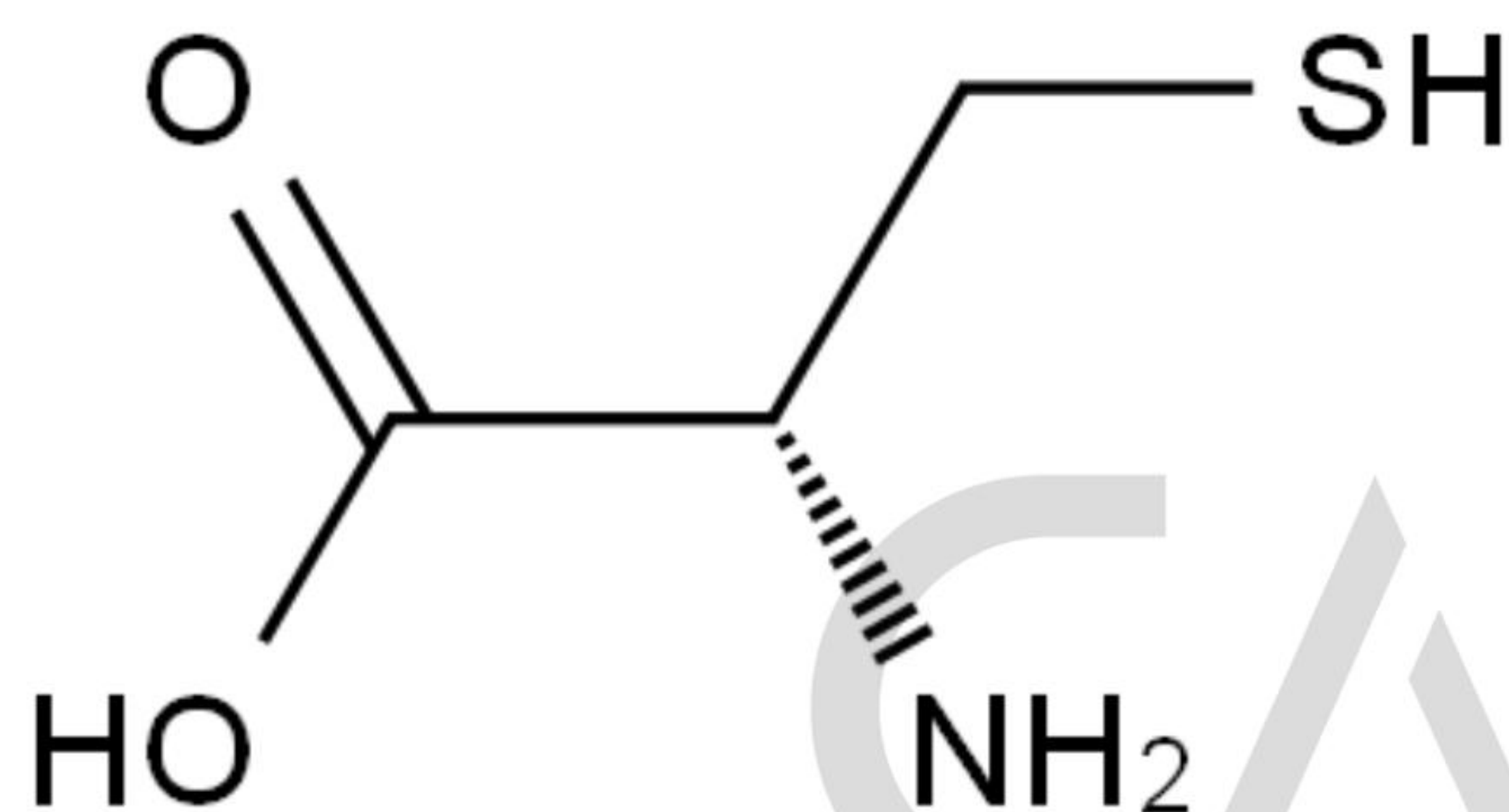


Certificate of Analysis

Reference Material & Standard

Product Name:	L-Cysteine hydrochloride	Catalogue Number:	CCHM701476
Synonyms:	N/A	Lot Number:	0514-RB-0025
CAS Number:	52-89-1	Expiry Date:	Sep 27, 2027
Molecular Formula:	C ₃ H ₇ NO ₂ S HCl	Storage:	Room Temp Protected from light and Sealed
Molecular Weight:	121.16 36.46		
Chemical Structure:			



Test Items	Method	Results
Appearance	Visual inspection	White Solid
Identification	LCMS&CNMR&HNMR	Confirmed
Purity	ELSD	100.0%
Assay	qNMR	99.2%
Uncertainty		±2.0%

Comment:

1. Assay was determined by quantitative ¹H-NMR.
2. The uncertainty values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Signature:

Prepared by:

Lisa

Reviewed by:

Hinlam

Aporoved by General Manager:

David

Date: Oct 07, 2023

Date: Oct 07, 2023

Date: Oct 07, 2023

