

## Certificate of Analysis

Date of Testing: 2023-04-11 14:49:58  
Date of Next Testing: 2025-04-10 14:49:58  
Product Name: **cis-4-Hydroxy-D-proline**  
CAS Number: 2584-71-6  
Specifications & Purity:  $\geq 98.0\%$ (HPLC)  
Lot #: F2118073  
SKU #: **I132870**  
**Analysis:** **209144**  
Storage Temperature: Argon charged

Parameter	Limit Values	Result
Specific Rotation $[\alpha]_{20/D}(c=2 \text{ in H}_2\text{O})$	56-60 ( $^{\circ}$ )	56.96 $^{\circ}$
Purity(HPLC)	98-100 (%)	99.30000 %
Carbon by Elemental Analysis	44.9-46.7 (%)	45.36 %
Nitrogen by Elemental Analysis	10.5-10.9 (%)	10.60 %
Purity(Neutralization titration)	98-100 (%)	98.18 %
Appearance (I132870)	White powder	White powder
Infrared spectrum	Conforms to Structure	Conforms to Structure
Solubility in H <sub>2</sub> O , Colorless,Clear,100 mg/mL, H <sub>2</sub> O	pass	Pass



John Su  
QA & QC Manager