

**CERTIFICATE OF ANALYSIS**

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by TUV SUD America Inc.  
Certificate Number. 951001163

Catalogue Number J62166  
Lot Number T22L034  
Description L-Glutathione, reduced, 98+%  
CAS Number 70-18-8  
Quality Test/Release Date 22/Jul/2025  
Suggested retest date 22/Jul/2028  
Country of Origin China

Result Name	Units	Specifications	Test Value
Assay	%	≥98.0%	98.7
Appearance (Color)		White	White
Form		Crystalline powder	Crystalline powder
Heavy Metals	ppm	≤10 ppm	<10
Residue on ignition	%	≤0.1%	0.02
Impurity content	ppm	Ammonium(NH <sub>4</sub> ): ≤200 ppm	<200
Impurity content	ppm	Iron (Fe): ≤10 ppm	<10
Impurity content	ppm	Sulfate (SO <sub>4</sub> ): ≤300 ppm	<300
Infrared spectrum		Conforms	Conforms
Loss on Drying	%	≤0.5%	0.3
Optical Rotation	°	-15.5 to -17.5°	-16.5
Solution Test		Clear and colorless	Clear and colorless

*John Astarita*

John Astarita  
Director, Quality

Products are processed under ISO 9001:2015 quality management systems and samples are tested for conformance to the noted specifications. Certain data may have been supplied by third parties. We disclaim the implied warranties of merchantability and fitness for a particular purpose, and the accuracy of third-party data or information associated with the product. Products are for research and development use only. Products are not for direct administration to humans or animals. It is the responsibility of the final formulator or end user to determine suitability, and to qualify and/or validate each product for its intended use.

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of the catalogue number listed above.