



CERTIFICATE OF ANALYSIS

Sodium Calibration Standard for Oxidized Feed Hydrolysate 1700-0155

Product: Oxidized Feed Hydrolysate Standard
Part Number: 1700-0155
Lot Number: 2311001
Production Date: November 2, 2023
Expiration Date: November 30, 2026

Primary Application: This calibration standard is a solution of 16 amino acids and ammonia in 0.27 N sodium citrate buffer, pH 2.2. This calibration standard is intended to be used for calibration of chromatographic instrumentation for determination of amino acids.

Acceptance Criteria: The concentrations for 16 amino acids and ammonia are within $\pm 4\%$ of those stated below. These values are based on the results of HPLC analysis using certified NIST amino acids standard and Sigma amino acids standard.

Compound	Concentrations $\mu\text{M/mL}$
L-Alanine	0.25
Ammonia	0.25
L-Arginine	0.25
L-Aspartic acid	0.25
L-Cysteic acid	0.25
L-Glutamic acid	0.25
Glycine	0.25
L-Histidine	0.25
L-Isoleucine	0.25
L-Leucine	0.25
L-Lysine	0.25
L-Methionine-D,L sulfone	0.25
L-Phenylalanine	0.25
L-Proline	0.25
L-Serine	0.25
L-Threonine	0.25
L-Valine	0.25

Storage Conditions: Keep frozen

Analysis Certified by: Maria Ofitserova, Ph.D. **Date:** December 7, 2023
Senior Research Chemist
Title