



CERTIFICATE OF ANALYSIS

Amino Acids Calibration Standard - Basics For Lithium Systems 1700-0175

Product: Amino Acids Calibration Standard - basics

Part Number: 1700-0175

Lot Number: 308024

Production Date: 29 Aug 2013

Expiration Date: 29 Aug 2016

Primary Application: This calibration standard is a solution of 14 amino acids and ammonia in 0.1N Hydrochloric acid. This calibration standard is intended to be used for calibration of chromatographic instrumentation for determination of amino acids.

Acceptance Criteria: The concentrations for 14 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 $\mu\text{M}/\text{mL}$
γ -Amino-butyric acid	2.5
Ammonia	2.5
L-Anserine	2.5
L-Arginine	2.5
L-Carnosine	2.5
Creatinine	2.5
Ethanolamine	2.5
L-Histidine	2.5
L-Homocystine	2.5
D,L&allo-Hydroxylysine	2.5
L-Lysine	2.5
1-Methyl-L-histidine	2.5
3-Methyl-L-histidine	2.5
L-Ornithine	2.5
L-Tryptophan	2.5

Analysis Certified by:

Jim Murphy
President

Title

Date:

13 Sep 2013