



# Certificate of Analysis

**Bottle Casamino Acids  
500g**

Catalog Number: 223050

Lot Number: 1251475

Manufacturing Date: 10 Aug 2021

Expiration Date: 31 Jul 2026

Intended Use: For research use or further manufacturing. Not for diagnostic use or direct administration into humans or animals.

Specifications 01-05 were tested and are acceptable

01. Dehydrated Appearance: Very light, beige to tan, free-flowing, homogeneous
02. Solubility: 2% solution soluble in distilled or deionized water on slight heating
03. Solution Appearance 2%: Light amber, clear
04. Cultural Response: 1% Casamino Acids was prepared and the pH was adjusted to  $7.2 \pm 0.2$ . Tubes were inoculated with the test organisms and incubated at  $35 \pm 2^\circ\text{C}$  for 18-48 hours.

TEST ORGANISMS	ATCC®	RECOVERY
Escherichia coli	25922	good
Salmonella typhi	19430	good

05. Residual Solvents (CPMP/ICH/283/95): Typical Analysis for Casamino Acids did not detect any solvents.

TEST	SPECIFICATION	RESULT	UNITS
pH at 25°C:	5.80 – 6.65	6.39	-
Loss on Drying:	≤ 5	2	%
Ash:	17 – 25	23	%
Sodium Chloride	10 – 20	15	%
Iron	≤ 8	2	ppm
Nitrogen (Kjeldahl Method)	8 - 11	10	%
Amino Nitrogen (Modified Sorensen)	-	9.0	%
Bulk Lot Number:	-	1200292	-

ANIMAL SOURCE	COUNTRY OF ORIGIN	TISSUE CATEGORY		
		BIC	SIC	ABC
Bovine	New Zealand	IV	IV	MLK

## Certificate of Analysis

(Continued)

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The Lot Number on this certificate is synonymous with the Lot Number shown on the product label.

This product was manufactured and tested for Thermo Fisher Scientific - Advanced Bioprocessing in ISO 13485:2016 registered facilities. In addition, these facilities are registered with the United States Food and Drug Administration (FDA), and are regulated by the FDA's Quality System Regulations (QSRs). This product met Thermo Fisher's stringent quality standards at time of lot release. Any test results reported on this certificate were obtained at time of release. This material is not for human or animal consumption.

Advanced Bioprocessing's Certificates of Analysis (COA) typically contain animal origin information when products are manufactured using materials of animal origin. This information may be contained in the animal source table and/or in one or more of the additional paragraphs found on the COA. Following Quality Control release, the COA is created and published for catalog products at <http://www.thermofisher.com/coasearch>. For each lot of finished product that contains animal origin raw materials, the COA shows the animal origin data from the individual lots of animal origin raw materials used, as provided by the raw material suppliers.

At times, suppliers notify Thermo Fisher of new and/or additional information they have received from their raw material suppliers that modifies the animal origin information for lots previously provided to Thermo Fisher. Advanced Bioprocessing will notify customers of record for any changes to the COA.

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*San An Yawel* 15 Oct 2021  
Quality System Department