matrihealth
Expertise in Elastin

matriVital B

Food-grade hydrolyzed elastin

Manufactured in accordance with Codex Alimentarius HACCP principles

Product Specifications

Product No.: FB3B
Source: Bovine
Version 1.0
Ver. date: July 15, 2026

1. Identity

Parameter	Specification	Method
Protein content	≥ 90 %	Kjeldahl (Nx6.25)
Desmosine[1)]	≥ 0.5 wt%	Amino acid analysis
Isodesmosine[1)]	≥ 0.5 wt%	Amino acid analysis
Elastin content in protein fraction[1)]	≥ 90 %	HPLC-MS/MS

2. Physical and Chemical Properties

Parameter	Specification	Method
Appearance	Powder	Organoleptic
Color	Yellowish to orange to brownish	Organoleptic
Odor	Odorless to faint	Organoleptic
Water content	≤ 10 wt%	Loss on drying (10 g, 105 °C, 1 h)
Active water (a_w)	< 0.6	Sensor measurement
Conductivity	< 1 mS/cm	Conductivity electrode, 1 wt% solution
Mean molecular weight (M_w)	10-30 kDa	SEC, SDS-PAGE
pH	6-8	pH electrode, 1 wt% solution
Clarity of solution	FIO[2)], batch-specific	OD_{600}, 1 wt% solution

3. Heavy Metal and Chemical Analysis

Parameter	Specification	Method
Arsenic (As)	≤ 1 mg/kg (ppm)	ICP-MS
Cadmium (Cd)	≤ 0.5 mg/kg (ppm)	ICP-MS
Chromium (Cr)	≤ 10 mg/kg (ppm)	ICP-MS
Copper (Cu)	≤ 30 mg/kg (ppm)	ICP-MS
Iron (Fe)	≤ 30 mg/kg (ppm)	ICP-MS
Lead (Pb)	≤ 3 mg/kg (ppm)	ICP-MS
Mercury (Hg)	≤ 0.1 mg/kg (ppm)	ICP-MS
Zinc (Zn)	≤ 50 mg/kg (ppm)	ICP-MS
Sulfur dioxide (SO_2)	≤ 10 mg/kg (ppm)	Photometric
Hydrogen peroxide (H_2O_2)	≤ 10 mg/kg (ppm)	Semiquantitative

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matrihealth GmbH Verified by Pfeiffer Consulting HACCP – Codex Alimentarius

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4. Microbiological Analysis

Parameter	Specification	Method
Total Aerobic Mesophilic Microorganisms	≤ 100 CFU/g	ISO 4833-1
Anaerobic sulphite-reducing spores	≤ 10 CFU/g	ISO 15213-1:2023-05
Enterobacteriaceae	≤ 10 CFU/g	ISO 21528-2
Listeria monocytogenes	Absence/25 g	ISO 11290-1
Escherichia coli	Absence/10 g	ISO 16649-3:2018-1
Salmonella	Absence/25 g	ISO 6579-1

5. Amino Acid Profile[1)]

Amino acid	Amount (g/100g)	Amino acid	Amount (g/100g)
Glycine	19.83	Serine	0.20
Alanine	24.51	Threonine	0.09
Valine	13.26	Arginine	0.32
Proline	12.59	Asparagine/Aspartate	0.78
Leucine	6.59	Cysteine	0.10
Phenylalanine	4.78	Histidine	0.05
Tyrosine	1.76	Methionine	0.04
Glutamine/Glutamate	2.77	Ornithine	0.22
Isoleucine	2.49	Hydroxylysine	<0.02
Hydroxyproline	0.83	Taurine	<0.02
Lysine	0.61	γ-Aminobutyric acid	<0.02

6. Nutritional Analysis[3)]

Nutritional value	Result (per 100g)
Energy	1678 kJ / 395 kcal
Protein	94.3 g
Total fat	1.6 g
- of which saturates	0.60 g
- of which monounsaturates	0.95 g
Carbohydrates	0.9 g
Ash	0.73 g
Salt	1.33 g
Sodium (Na)	0.531 g

1) This parameter is monitored through periodic validation and is not part of routine batch release testing.
2) For information only. This parameter is measured per batch but not part of specification.
3) Indicative analytical values subject to process-related variability. This analysis is not included in the batch release testing.