



matriVital

Food-grade hydrolyzed elastin

Product Specifications

Product No.: FB3A
 Source: Porcine

Rev. 2.0
 Rev. date: Feb 23, 2026

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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 ₂ O ₂)	≤ 10 mg/kg (ppm)	Semiquantitative



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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 Profile¹⁾

Amino acid	Amount (g/100g)	Amino acid	Amount (g/100g)
Glycine	21.59	Serine	0.32
Alanine	28.41	Threonine	0.19
Valine	13.82	Arginine	0.37
Proline	13.84	Asparagine/Aspartate	0.71
Leucine	6.39	Cysteine	0.10
Phenylalanine	4.36	Histidine	0.07
Tyrosine	4.35	Methionine	0.06
Glutamine/Glutamate	3.46	Ornithine	0.20
Isoleucine	1.77	Hydroxylysine	<0.02
Hydroxyproline	0.99	Taurine	<0.02
Lysine	1.35	γ-Aminobutyric acid	<0.02

6. Nutritional Analysis³⁾

Nutritional value	Result (per 100g)
Energy	1701 kJ / 401 kcal
Protein	95.8 g
Total fat	1.9 g
- of which saturates	0.69 g
- of which monounsaturates	1.2 g
Carbohydrates	0.1 g
Ash	1.3 g
Salt	1.36 g
Sodium (Na)	0.542 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.