



matriNutra®

Food-grade macromolecular elastin



Product Specifications

Product No.: FN1A
Source: Porcine

Version 2.1
Ver. date: August 10, 2026

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1. Identity

Parameter	Specification	Method
Protein content	≥ 90 %	Kjeldahl (Nx6.25)
Desmosine ¹⁾	≥ 0.1 wt%	Amino acid analysis
Isodesmosine ¹⁾	≥ 0.1 wt%	Amino acid analysis
Elastin content in protein fraction ¹⁾	≥ 90 %	HPLC-MS/MS

2. Physical and Chemical Properties

Parameter	Specification	Method
Appearance	Coarse, non-specific granules; flakes	Organoleptic
Color	Yellowish to orange to brownish	Organoleptic
Odor	Faint to specific	Organoleptic
Solubility	Insoluble	Intrinsic property
Water content	≤ 10 wt%	Loss on drying (10 g, 105 °C, 1 h)
Active water (a _w)	< 0.6	Sensor measurement

3. Microbiological Analysis

Parameter	Specification	Method
Total Aerobic Mesophilic Microorganisms	≤ 500 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

4. 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. Amino Acid Profile¹⁾

Amino acid	Amount (g/100g)	Amino acid	Amount (g/100g)
Glycine	27.23	Serine	0.98
Alanine	23.05	Threonine	0.94
Valine	16.14	Arginine	0.87
Proline	14.39	Asparagine/Aspartate	0.68
Leucine	7.41	Cysteine	0.09
Phenylalanine	5.82	Histidine	0.07
Tyrosine	3.12	Methionine	0.06
Glutamine/Glutamate	2.97	Ornithine	0.04
Isoleucine	2.63	Hydroxylysine	<0.02
Hydroxyproline	1.40	Taurine	<0.02
Lysine	1.00	γ-Aminobutyric acid	<0.02

5. Nutritional Analysis²⁾

Nutritional value	Result (per 100g)
Energy	1705 kJ / 401 kcal
Protein	97.9 g
Total fat	1.0 g
- of which saturates	0.16 g
- of which monounsaturates	0.84 g
Carbohydrates	0.2 g
Ash	0.43 g
Salt	0.46 g
Sodium (Na)	0.182 g

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