

Sample code Nr.	121-2023-00116891	Report Date	28/11/2023	Page 1/5
Analytical Report Nr.	AR-23-ID-121950-01 / 121-2023-00116891			



VALEMIS AG

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- SWITZERLAND

Our reference :	121-2023-00116891 / AR-23-ID-121950-01		
Matrix :	Collagen		
Sample described as :	Bovine collagen hydrolysate		
Sample reception date :	24/10/2023		
Sampling/Transport :	by courier		
Reception Temperature	18 °C	Format	Aliquot
Expiration date	23/02/2028	Lot	PC23-00657/22
Production date	23/02/2023		

Subcontracted analysis	Results ((uncertainty)) U.M.	LOD	LOQ
C0090 Proteins Method : T-AA09-WO3937 - Kjeldahl (titrimetry) Test performed at: Eurofins Analyses Nutritionnelles France (FR) Accreditation COFRAC TESTING (scope on www.cofrac.fr) 1-7085 Analysis start date: 02/11/2023 - Analysis end date: 28/11/2023			
Total Nitrogen	16.33 (± 0.40) g/100 g	--	0.08
Proteins (Nx6.25) (Kjeldahl)	90.63 (± 2.22) g/100 g	--	0.5
<i>Protein calculated using the factor 5.55</i>			
DI004 Amino acids (acid hydrolysis) Method : ISO 13903:2005 - IC-UV Test performed at: Eurofins Vitamin Testing Denmark A/S Accreditation DS EN ISO/IEC 17025 DANAK 581 Analysis start date: 02/11/2023 - Analysis end date: 09/11/2023			
Alanine	9.10 (± 1.27) g/100 g	--	0.015
Arginine	7.67 (± 1.07) g/100 g	--	0.01
Aspartic acid	5.79 (± 0.81) g/100 g	--	0.017
Glutamic acid	10.1 (± 1.4) g/100 g	--	0.021
Glycine	24.1 (± 3.4) g/100 g	--	0.019
Histidine	0.581 (± 0.081) g/100 g	--	0.02
Hydroxyproline	11.3 (± 2.3) g/100 g	--	0.2
Isoleucine	1.42 (± 0.20) g/100 g	--	0.035
Leucine	2.83 (± 0.40) g/100 g	--	0.015
Lysine	3.79 (± 0.53) g/100 g	--	0.014
Ornithine	<0.05 LOQ g/100 g	--	0.05
Phenylalanine	1.80 (± 0.25) g/100 g	--	0.031
Proline	12.6 (± 1.8) g/100 g	--	0.02
Serine	3.27 (± 0.46) g/100 g	--	0.016
Threonine	1.79 (± 0.25) g/100 g	--	0.006
Tyrosine	0.336 (± 0.047) g/100 g	--	0.023
Valine	2.26 (± 0.32) g/100 g	--	0.016
DJ011 Cysteine+Cystine & methionine (ox-amino acid) Method : ISO 13903:2005 - IC-UV Test performed at: Eurofins Vitamin Testing Denmark A/S Accreditation DS EN ISO/IEC 17025 DANAK 581 Analysis start date: 02/11/2023 - Analysis end date: 09/11/2023			
Cysteine +Cystine	<0.006 LOQ g/100 g	--	0.006
Methionine	0.816 (± 0.114) g/100 g	--	0.024
DJ009 Tryptophane Method : EU 152/2009 - LC-FLD Test performed at: Eurofins Vitamin Testing Denmark A/S Accreditation DS EN ISO/IEC 17025 DANAK 581 Analysis start date: 02/11/2023 - Analysis end date: 09/11/2023			
Tryptophan (Total)	<0.01 LOQ g/100 g	--	0.01
* DJAPN Free Physiological Amino Acids (41) Method : EN ISO 13903:2005 mod - IC-UV Test performed at: Eurofins Vitamin Testing Denmark A/S Analysis start date: 02/11/2023 - Analysis end date: 09/11/2023			
1-Methylhistidine (Free)	<0.5 LOQ g/kg	--	0.5
3-Methylhistidine (Free)	<0.5 LOQ g/kg	--	0.5

Sample code Nr.		121-2023-00116891	Report Date	28/11/2023	Page 2/5
Analytical Report Nr.		AR-23-ID-121950-01 / 121-2023-00116891			
Subcontracted analysis			Results ((uncertainty)) U.M.	LOD	LOQ
* DJAPN Free Physiological Amino Acids (41) Method : EN ISO 13903:2005 mod - IC-UV Test performed at: Eurofins Vitamin Testing Denmark A/S Analysis start date: 02/11/2023 - Analysis end date: 09/11/2023					
Alanine (Free)			0.984 (± 0.079) g/kg	--	0.5
alpha-Aminoadipic acid (Free)			<0.5 LOQ g/kg	--	0.5
alpha-Amino-n-butyric acid (Free)			<0.5 LOQ g/kg	--	0.5
Anserine (Free)			<0.5 LOQ g/kg	--	0.5
Arginine (Free)			2.09 g/kg	--	0.5
Asparagine (Free)			<0.5 LOQ g/kg	--	0.5
Aspartic Acid			0.848 (± 0.076) g/kg	--	0.5
beta-Alanine (Free)			<0.5 LOQ g/kg	--	0.5
beta-Aminoisobutyric acid (Free)			<0.5 LOQ g/kg	--	0.5
Carnosine			<0.5 LOQ g/kg	--	0.5
Citrulline			<0.5 LOQ g/kg	--	0.5
Cystathionine (Free)			<0.5 LOQ g/kg	--	0.5
Cystine (free)			<0.5 LOQ g/kg	--	0.5
Hydroxylysine (Free)			<0.5 LOQ g/kg	--	0.5
Ethanolamine			<0.5 LOQ g/kg	--	0.5
gamma-Amino-n-butyric acid (Free)			<0.5 LOQ g/kg	--	0.5
Glutamic acid (Free)			0.837 (± 0.059) g/kg	--	0.5
Glutamine (Free)			<0.5 LOQ g/kg	--	0.5
Glycine (Free)			0.661 (± 0.059) g/kg	--	0.5
Histidine (Free)			<0.5 LOQ g/kg	--	0.5
Homocystine (Free)			<0.5 LOQ g/kg	--	0.5
Hydroxyproline (Free)			<0.5 LOQ g/kg	--	0.5
Isoleucine (Free)			1.70 (± 0.17) g/kg	--	0.5
Leucine (Free)			<0.5 LOQ g/kg	--	0.5
Lysine (Free)			0.977 (± 0.156) g/kg	--	0.5
Methionine (Free)			<0.5 LOQ g/kg	--	0.5
Ornithine (Free)			<0.5 LOQ g/kg	--	0.5
Phenylalanine (Free)			<0.5 LOQ g/kg	--	0.5
Phosphoethanolamine (Free)			<0.5 LOQ g/kg	--	0.5
Phosphoserine (Free)			<0.5 LOQ g/kg	--	0.5
Proline (Free)			<0.5 LOQ g/kg	--	0.5
Sarcosine (Free)			<0.5 LOQ g/kg	--	0.5
Serine (Free)			<0.5 LOQ g/kg	--	0.5
Taurine (free)			<0.5 LOQ g/kg	--	0.5
Threonine (Free)			<0.5 LOQ g/kg	--	0.5
Tryptophan free			<0.5 LOQ g/kg	--	0.5
Tyrosine (Free)			<0.5 LOQ g/kg	--	0.5
Urea			<0.5 LOQ g/kg	--	0.5
Valine (Free)			1.02 (± 0.12) g/kg	--	0.5
Chemical parameters			Results ((uncertainty)) U.M.	LOD	LOQ
ID05W Moisture Method : Rapporti ISTISAN 1996/34 Met B Pag 7 - Gravimetry Test performed at: Eurofins Chemical Control Srl Accreditation UNI CEI EN ISO/IEC 17025:2018 ACCREDIA 0490L Analysis start date: 02/11/2023 - Analysis end date: 28/11/2023					
Moisture			8.54 (± 0.41) g/100 g	--	0.2
Dry matter			91.46 (± 0.41) g/100 g	--	0.2
ID04R Ash Method : Rapporti ISTISAN 1996/34 Pag 77 - Gravimetry Test performed at: Eurofins Chemical Control Srl Accreditation UNI CEI EN ISO/IEC 17025:2018 ACCREDIA 0490L Analysis start date: 02/11/2023 - Analysis end date: 28/11/2023					
Ash			0.55 (± 0.07) g/100 g	--	0.1
ID16B Total fat Method : MI 2405 rev 03/2023 - Gravimetry Test performed at: Eurofins Chemical Control Srl Accreditation UNI CEI EN ISO/IEC 17025:2018 ACCREDIA 0490L Analysis start date: 02/11/2023 - Analysis end date: 28/11/2023					
Total fat			< 0.1 g/100 g	--	0.1
ID0HV Total dietary fiber (High molecular weight) Method : AOAC 991.43 2000 - Enzymatic-gravimetry Test performed at: Eurofins Chemical Control Srl Accreditation UNI CEI EN ISO/IEC 17025:2018 ACCREDIA 0490L Analysis start date: 02/11/2023 - Analysis end date: 28/11/2023					
Total dietary fibre			< 0.5 g/100 g	--	0.5

Sample code Nr. 121-2023-00116891 Report Date 28/11/2023 Page 3/5
Analytical Report Nr. AR-23-ID-121950-01 / 121-2023-00116891

Chemical parameters	Results ((uncertainty)) U.M.	LOD	LOQ
* ID04U Carbohydrates (calculated as difference) Method : MI 2304 rev 00/2013 - Calculation Test performed at: Eurofins Chemical Control Srl Analysis start date: 02/11/2023 - Analysis end date: 28/11/2023 Carbohydrate calculated (difference) < 0.5 g/100 g -- 0.5			
* ID04V Energy value Method : Reg CEE 1169/2011 25/10/2011 GU CE L304 22/11/2011 All XIV - Calculation Test performed at: Eurofins Chemical Control Srl Analysis start date: 02/11/2023 - Analysis end date: 28/11/2023 Energy value (kcal) 363 kcal/100 g -- -- Energy value (kJ) 1541 kJ/100 g -- --			
ID16D Saturates, monounsatur., polyunsat. incl. trans fatty acids Method : MI 2342 rev 05/2023 - Calculation Test performed at: Eurofins Chemical Control Srl Accreditation UNI CEI EN ISO/IEC 17025:2018 ACCREDIA 0490L Analysis start date: 02/11/2023 - Analysis end date: 28/11/2023 saturated fatty acids total < 0.1 g/100 g -- 0.1 Monounsaturated fatty acids cis < 0.1 g/100 g -- 0.1 Polyunsaturated fatty acids cis < 0.1 g/100 g -- 0.1 Total of Trans Fatty Acid Isomers < 0.1 g/100 g -- 0.1			
ID01X Sugars - HPLC PAD Method : MI 1533 rev 08/2022 - HPAEC-PAD Test performed at: Eurofins Chemical Control Srl Accreditation UNI CEI EN ISO/IEC 17025:2018 ACCREDIA 0490L Analysis start date: 02/11/2023 - Analysis end date: 28/11/2023 Fructose < 0.1 g/100 g -- 0.1 Glucose < 0.1 g/100 g -- 0.1 Galactose < 0.1 g/100 g -- 0.1 Sucrose < 0.1 g/100 g -- 0.1 Maltose < 0.1 g/100 g -- 0.1 Lactose < 0.1 g/100 g -- 0.1 Sum of sugars < 0.10 g/100 g -- 0.1			
ID0G9 Salt calculated from sodium Method : MI 2385 rev 07/2022 - Calculation Test performed at: Eurofins Chemical Control Srl Accreditation UNI CEI EN ISO/IEC 17025:2018 ACCREDIA 0490L Analysis start date: 02/11/2023 - Analysis end date: 06/11/2023 Salt Calculated From Sodium 0.605 (± 0.085) g/100 g -- 0.001			

Contaminants	Results ((uncertainty)) U.M.	LOD	LOQ
ID0HW Lead (ICP-MS) Method : UNI EN 13805:2014 + EN 15763:2009 - ICP-MS Test performed at: Eurofins Chemical Control Srl Accreditation UNI CEI EN ISO/IEC 17025:2018 ACCREDIA 0490L Analysis start date: 02/11/2023 - Analysis end date: 06/11/2023 Lead (Pb) < 0.01 mg/kg 0.003 0.01			
ID01I Cadmium (ICP-MS) Method : UNI EN 13805:2014 + EN 15763:2009 - ICP-MS Test performed at: Eurofins Chemical Control Srl Accreditation UNI CEI EN ISO/IEC 17025:2018 ACCREDIA 0490L Analysis start date: 02/11/2023 - Analysis end date: 06/11/2023 Cadmium (Cd) < 0.005 mg/kg 0.002 0.005			
ID0I3 Chromium (ICP-MS) Method : MI 2385 rev 07/2022 - ICP-MS Test performed at: Eurofins Chemical Control Srl Accreditation UNI CEI EN ISO/IEC 17025:2018 ACCREDIA 0490L Analysis start date: 02/11/2023 - Analysis end date: 06/11/2023 Chromium (Cr) 0.35 (± 0.09) mg/kg 0.02 0.05			
ID0IA Nickel (ICP-MS) Method : MI 2385 rev 07/2022 - ICP-MS Test performed at: Eurofins Chemical Control Srl Accreditation UNI CEI EN ISO/IEC 17025:2018 ACCREDIA 0490L Analysis start date: 02/11/2023 - Analysis end date: 06/11/2023 Nickel (Ni) < 0.05 mg/kg 0.02 0.05			
ID0KV Mercury (ICP-MS) Method : UNI EN 13805:2014 + EN 15763:2009 - ICP-MS Test performed at: Eurofins Chemical Control Srl Accreditation UNI CEI EN ISO/IEC 17025:2018 ACCREDIA 0490L Analysis start date: 02/11/2023 - Analysis end date: 06/11/2023 Mercury < 0.01 mg/kg 0.003 0.01			
ID0I0 Arsenic (ICP-MS) Method : UNI EN 13805:2014 + EN 15763:2009 - ICP-MS Test performed at: Eurofins Chemical Control Srl Accreditation UNI CEI EN ISO/IEC 17025:2018 ACCREDIA 0490L Analysis start date: 02/11/2023 - Analysis end date: 06/11/2023 Arsenic (As) < 0.01 mg/kg 0.003 0.01			
ID0I4 Copper (ICP-MS) Method : MI 2385 rev 07/2022 - ICP-MS Test performed at: Eurofins Chemical Control Srl Accreditation UNI CEI EN ISO/IEC 17025:2018 ACCREDIA 0490L Analysis start date: 02/11/2023 - Analysis end date: 06/11/2023 Copper (Cu) < 0.1 mg/kg 0.03 0.1			

Sample code Nr. 121-2023-00116891 Report Date 28/11/2023 Page 4/5
Analytical Report Nr. AR-23-ID-121950-01 / 121-2023-00116891

Contaminants	Results ((uncertainty)) U.M.	LOD	LOQ
ID01E Zinc (ICP-MS) Method : MI 2385 rev 07/2022 - ICP-MS Test performed at: Eurofins Chemical Control Srl Accreditation UNI CEI EN ISO/IEC 17025:2018 ACCREDIA 0490L Analysis start date: 02/11/2023 - Analysis end date: 06/11/2023 Zinc < 0.1 mg/kg 0.03 0.1			
ID01S Iron (ICP-MS) Method : MI 2385 rev 07/2022 - ICP-MS Test performed at: Eurofins Chemical Control Srl Accreditation UNI CEI EN ISO/IEC 17025:2018 ACCREDIA 0490L Analysis start date: 02/11/2023 - Analysis end date: 06/11/2023 Iron (Fe) 0.5 (± 0.1) mg/kg 0.03 0.1			
ID019 Sodium (ICP-MS) Method : MI 2385 rev 07/2022 - ICP-MS Test performed at: Eurofins Chemical Control Srl Accreditation UNI CEI EN ISO/IEC 17025:2018 ACCREDIA 0490L Analysis start date: 02/11/2023 - Analysis end date: 06/11/2023 Sodium (Na) 242.0 (± 19.4) mg/100 g 0.2 0.5			
ID016 Potassium (ICP-MS) Method : MI 2385 rev 07/2022 - ICP-MS Test performed at: Eurofins Chemical Control Srl Accreditation UNI CEI EN ISO/IEC 17025:2018 ACCREDIA 0490L Analysis start date: 02/11/2023 - Analysis end date: 06/11/2023 Potassium (K) 1.6 (± 0.2) mg/100 g 0.2 0.5			
ID012 Calcium (ICP-MS) Method : MI 2385 rev 07/2022 - ICP-MS Test performed at: Eurofins Chemical Control Srl Accreditation UNI CEI EN ISO/IEC 17025:2018 ACCREDIA 0490L Analysis start date: 02/11/2023 - Analysis end date: 06/11/2023 Calcium (Ca) < 0.5 mg/100 g 0.2 0.5			
ID017 Magnesium (ICP-MS) Method : MI 2385 rev 07/2022 - ICP-MS Test performed at: Eurofins Chemical Control Srl Accreditation UNI CEI EN ISO/IEC 17025:2018 ACCREDIA 0490L Analysis start date: 02/11/2023 - Analysis end date: 06/11/2023 Magnesium (Mg) < 0.2 mg/100 g 0.06 0.2			
ID01B Phosphorus (ICP-MS) Method : MI 2385 rev 07/2022 - ICP-MS Test performed at: Eurofins Chemical Control Srl Accreditation UNI CEI EN ISO/IEC 17025:2018 ACCREDIA 0490L Analysis start date: 02/11/2023 - Analysis end date: 06/11/2023 Phosphorus 1.3 (± 0.1) mg/100 g 0.06 0.2			
ID018 Manganese (ICP-MS) Method : MI 2385 rev 07/2022 - ICP-MS Test performed at: Eurofins Chemical Control Srl Accreditation UNI CEI EN ISO/IEC 17025:2018 ACCREDIA 0490L Analysis start date: 02/11/2023 - Analysis end date: 06/11/2023 Manganese (Mn) < 0.05 mg/kg 0.02 0.05			

SIGNATURE



Valeria Merlo
Business Unit Manager

Report electronically signed by Valeria Merlo

Sample code Nr.	121-2023-00116891	Report Date	28/11/2023	Page 5/5
Analytical Report Nr.	AR-23-ID-121950-01 / 121-2023-00116891			

EXPLANATORY NOTE

- Tests / sampling procedures marked with asterisk (*) are outside the scope of the Laboratory's accreditation.

- Registration in the Regional List, of the Piedmont Region, of Laboratories performing analytical tests related to self-control for Food Industries: registration no. 14.

- Measurement expanded uncertainty has been calculated with a confidence level of 95% and a coverage factor k=2, if not differently specified.

- For microbiological testing, measurement uncertainty has been calculated according to ISO 19036: 2019 standard for food and ISO 8199: 2018 standard for water samples.

- The results expressed in the analytical report refer exclusively to the sample submitted for testing, as received.

- The analytical report shall not be reproduced, except in its entirety, without written approval of Eurofins Chemical Control Srl. Analytical Report legally valid is understood to be the electronic one and not the hard copy.

- Sampling, unless specifically stated on the analytical report, is always intended to be carried out by the Customer, on his or her own responsibility, and outside the accreditation scope.

- All services are carried out in accordance with the General Terms & Conditions of Sales (GTS) of Eurofins, available on request, and/or other contractual documents, if any.

- Tests which are not performed directly by Eurofins Chemical Control Srl are subcontracted to other Eurofins and /or external laboratories identified on the analytical report: Eurofins Chemical Control Srl is responsible to the Customers for subcontracted tests.

- For the subcontracted tests, the original analytical report is available upon request, from our laboratory. If the test report contains only subcontracted tests, the original certificate of analysis will always be provided to the customer in order to ensure the accreditation of the subcontracted tests.

- Eurofins Chemical Control Srl, when not performing the sampling in its own care, disclaims responsibility for the information provided by the Customer, such as sample description, client code, batch number, sampling date and time, sampling location, sampling surface.

- When declaring the compliance of a result with a specific requirement, Eurofins Chemical Control Srl uses the decision rules detailed in paragraph 8 of the General Terms & Conditions of Sales (GTS).

LEGEND

U.M.: Unit of Measurement

LOQ: Limit of Quantification

LOD: Limit of Detection

U: Expanded uncertainty

Rec.: % Recovery

MRL: Maximum Residue Limit

MI: Internal Method

For Quantitative Tests

< LOQ: below LOQ

Pos. < LOQ: traces between LOD and LOQ

For Quantitative Tests Microbiology

< LOD: not detected, below LOD

< LOQ: Microorganisms detected but below 4/Vd (inoculum volume and dilution factor) per g or ml

For Quantitative Tests Allergens

Not detected & <LOQ: not detected, below LOQ

Detected & <LOQ: traces between LOD and LOQ

For Qualitative Tests

Not Detected < LOD: negative

Detected > LOD: positive

Please refer to the original analytical report for acronyms related to subcontracted tests.

End of the Analytical Report