



PROTEIN PLUS Hydrolyzed whey protein powder

Product Description

PROTEIN PLUS is highly purified whey protein that is hydrolyzed under controlled conditions to obtain unique functional and nutritional properties. It is ideal for food and nutrition products where high quality protein with clean flavor and soft textures are preferred. It is lactose-free.

<u>Analysis*</u>	<u>Specification</u>	<u>Typical Range</u>	<u>Test Method</u>
Moisture (%)	5.5 max.	5.0±0.5	Vacuum Oven AOAC 927.05
Protein, dry basis (N x 6.38) (%)	96.0 min.	97.2±0.7	Leco Combustion AOAC 990.03
Amino Nitrogen (AN) (%)	2.0 min.	2.3±0.2	OPA Method
Degree of Hydrolysis % (AN/TN)	14 min.	15.0±1.0	OPA Method
Fat (%)	1.0 max.	0.3±0.3	Mojonnier AOAC 989.05
Ash (%)	5.0 max.	2.5 ±0.5	Residue on Ignition AOAC 930.30
Lactose (%)	0.5 max.	<0.3	Enzymatic AOAC 984.15
pH	6.0– 7.0	6.5±0.3	10% Sol. @ 20°C. AOAC 945.27
Scorched Particles	15.0 mg/25 g max.	7.5 mg	ADPI, AOAC 952.21
Molecular weight % (>20 kDa)		22-26	HPLC
Molecular weight % (10-20 kDa)		33-41	HPLC
Molecular weight % (5-10 kDa)		4-4	HPLC
Molecular weight % (2-5 kDa)		6-7	HPLC
Molecular weight % (1-2 kDa)		4-5	HPLC
Molecular weight % (500 Da-1 kDa)		5-7	HPLC
Molecular weight % (500 Da)		16-20	HPLC

<u>Microbiological Profile</u>	<u>Specification</u>	<u>Typical Range</u>	<u>Test Method</u>
Aerobic Plate Count	<10,000/g	<2,500	FDNBAM, AOAC 966.23
Coliform (MPN)	<10/g	<10	FDNBAM, AOAC 966.23
<i>E. coli</i> (MPN)	Negative/g	Negative	FDNBAM, AOAC 966.23
Yeast& Mold	10/g max.	s;10	FDNBAM
Coag. Pos. Staph (MPN)	<10/g	<10	FDNBAM, AOAC 966.23
Salmonella sp.	Negative/1500 g	Negative	FDNBAM, ELISA AOAC 2004.03
Listeria sp.	Negative/25 g	Negative	FDNBAM, AOAC 999.06

* AII results reported on "AS IS" basis except where noted.

** Standard Methods for the Examination of Dairy Products, 16th Edition.



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Pharma ■ ■ ■

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Typical Nutrient information

Expressed per 100 grams product, as is

Calories	370
Calories from fat	0
Total Fat	0.5 g
Saturated Fat	0 g
Unsaturated Fat	0 g
Trans Fat	0 g
Cholesterol	0 mg
Sodium	1150 mg
Potassium	100 mg
Total Carbohydrates	0 g
Dietary Fiber	0 g
Sugars	0 g
Added Sugars	0 g
Protein (N x 6.38)	94 g
Vitamin A	<100 IU
Vitamin C	<2 mg
Vitamin D	<0.2 mcg
Iron	0 mg
Calcium	110 mg
Phosphorus	70 mg
Magnesium	20 mg
Chloride	650 mg



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Typical Amino Acid Profile

Expressed per 100 grams product, as is

Alanine	4.9 g
Arginine	2.4 g
Aspartic Acid/Asparagine	11.4 g
Cysteine	2.8 g
Glutamic Acid/Glutamine	16.1 g
Glycine	1.7 g
Histidine*	2.0 g
Isoleucine**	5.6 g
Leucine**	12.7 g
Lysine*	10.2 g
Methionine*	2.3 g
Phenylalanine*	3.5 g
Proline	4.7 g
Serine	3.3 g
Threonine*	4.7 g
Tryptophan*	2.9 g
Tyrosine	3.6 g
Valine**	5.4 g

* Essential Amino Acid

** Branched Chain Amino Acid