

Immulox Proline-rich-Polypeptide (PRP) Spray

Description and Suggested Applications

Updated 11/23/10

Immulox is bovine colostrum-based natural immune building product. It contains over 80 known Proline-Rich-Polypeptides (Molecular Weights 500-2,500 Daltons) and other immune factors which promote normal immune responses. Immulox also contains growth factors, including IgF-1, IgF-2, TgF-A and TgF-B, which stimulate normal cell growth and tissue repair. It is a clear green liquid with a slightly acidic natural creamy flavor. It is sourced from rBST-free, growth hormone free, anti-biotic, herbicide and pesticide free cows. It is also Kosher and Halal Certified. It is manufactured in a certified Good Manufacturing Practices (cGMP) and FDA Inspected Facility.

Major Active Component Analysis

	Spec	Typical	Method
Protein, % (Nx6.38) db	0.30 min	0.35	AOAC 991.20 18th Ed., page 33.2.11
Proline-Rich Polypeptides (PRPs), %	0.20 min	0.30	HPLC (IX, dry basis)
Insulin Growth Factor (Type 1), µg/g	0.02 min	0.03	ELISA (dry basis)
Insulin Growth Factor (Type 2), ng/g	0.24 min	0.32	ELISA (dry basis)
Derived Platelet Growth Factor, ng/g	0.08 min	0.09	HPLC (dry basis)
Epidermal Growth Factor, µg/g	0.02 min	0.03	ELISA (dry basis)
Fibroblast Platelet Growth Factor, ng/g	0.08 min	0.11	ELISA (dry basis)
Transforming Growth Factor α, mcg/100g	0.04 min	0.46	ELISA (dry basis)

Vitamin Analysis

Vitamin A, µg/g	20.0 min	24	AOAC985.30 18th Ed., page 50.1.01
Vitamin B1, µg/g	15.0 min	18	AOAC986.27 18th Ed., page 50.1.08
Vitamin B2, µg/g	50.0 min	193	AOAC970.65 18th Ed., page 45.1.08
Vitamin B5, µg/g	2.00 min	2.75	AOAC992.07 18th Ed., page 50.1.22
Vitamin B6, µg/g	15.00 min	19	AOAC985.32 18th Ed., page 50.1.18
Vitamin B12, µg/g	0.05 min	0.1	AOAC 986.23 18th Ed., pg 50.1.20
Vitamin C, µg/g	0.25 min	0.45	AOAC985.33 18th Ed., page 50.1.09
Vitamin E, µg/g	0.18 min	0.3	AOAC992.03 18th Ed., page 50.1.04
Folic Acid, µg/g	2.00 min	2.75	AOAC992.05 18th Ed., page 50.1.21

Analytical Analysis

Moisture, %	>	90.0	95.5	AOAC 934.01/4.103 16th Ed.(102C, 3 hours)
Ash, %	<	5.0	1.3	AOAC 945.46 18th Ed., pg 33.2.10.
Total Fat, %	<	1.0	0.12	AOAC 989.04 18th Ed., pg 33.2.27
Trans Fat, %	<	1.0	Not Detected	AOAC 989.04 18th Ed., pg 33.2.27
Saturated Fat, %	<	1.0	Not Detected	AOAC 989.04 18th Ed., pg 33.2.27
Total Carbohydrate, %	<	5.0	4.2	By difference
Lactose, %	<	5.0	4.2	By difference
Dietary Fiber, %	<	1.0	Not Detected	AOAC 991.43 18 th Ed., pg 32.1.17
Energy, cal/mL	<	1.00	0.6	AOAC 952.21 18th Ed., pg 16.3.01
pH	<>	5.0 - 5.5	5.2	pH-meter
Sugar, %	<	5	4.2	By difference

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Microbiological Analysis

Aerobic Plate Count, CFU/ml	<	1,000	100	AOAC 990.12 18th Ed., pg 17.2.07
E. Coli, CFU/ml		Not Detected	Not Detected	AOAC 991.14 18th Ed., pg 17.3.04
Coliform, CFU/ml		Not Detected	Not Detected	AOAC 991.14 18th Ed., pg 17.3.04
Yeast/Mold, CFU/ml		Not Detected	Not Detected	AOAC 997.02 18th Ed., pg 17.2.09
Listeria, CFU/ml		Not Detected	Not Detected	AOAC-RI Performance Tested Method 030502
Salmonella, CFU/ml		Not Detected	Not Detected	AOAC-RI Performance Tested Method 100201
Enterobacteriaceae, CFU/ml		Not Detected	Not Detected	AOAC 2003.01 18th Ed., pg 17.3.10
Bacillus Cereus, CFU/ml		Not Detected	Not Detected	AOAC 980.31 18th Ed., pg 17.8.01(mod)
Enterosakazakii, CFU/ml		Not Detected	Not Detected	BAX Q7 PCR Method
Shigella, CFU/ml		Not Detected	Not Detected	RapID onE Sytem
Streptococcus hemolytics, CFU/ml		Not Detected	Not Detected	AOAC 940.37 18th Ed., pg 17.1.03 (mod)
Staph. Aureus, CFU/ml		Not Detected	Not Detected	AOAC 2003.08 18th Ed., pg 17.5.09

Vitamin and Mineral Analysis

Calcium, mg/100g	>	10	19	AOAC 984.27 18th Ed., pg 50.1.15
Magnesium, mg/100g	>	2	3	AOAC 984.27 18th Ed., pg 50.1.15
Zinc, mg/100g	>	0.06	0.12	AOAC 984.27 18th Ed., pg 50.1.15
Sodium, mg/100g	>	8	12	AOAC 984.27 18th Ed., pg 50.1.15
Potassium, mg/100g	>	28	26.4	AOAC 984.27 18th Ed., pg 50.1.15
Phosphorus, mg/100g	>	10	19.8	AOAC 984.27 18th Ed., pg 50.1.15
Iron, mg/100g	<	0.3	Not Detected	AOAC 984.27 18th Ed., pg 50.1.15

Other Contaminants

Nitrite (NaNO ₂), ppm	<	2	0.5	AOAC 951.03 18th Ed., pg 32.1.30
Nitrate (NaNO ₃), ppm	<	80	10	AOAC 951.03 18th Ed., pg 32.1.30
Inhibitory Substances, ppb	<	5	Negative	CHARM SL M-a-85
Aflatoxin M1, ppb	<	0.25	Negative	AOAC 974.17 18th Ed., pg 49.3.01
Nitrofurans (AMOZ), ppb	<	0.3	Negative	Charm II 6600 (operating manual)
Nitrofurans (AOZ), ppb	<	0.3	Negative	Charm II 6600 (operating manual)
Dioxins, pg/g	<	3	Not detected	AOAC 968.23 18th Ed., pg 41.1.59
Dioxins and Dioxin-like PCBs, pg/g	<	4.5	Not detected	AOAC 984.21 18th Ed., pg 10.2.02
Melamine, ppm	<	2	Negative	FDA GCMS-MS
Titratable Acidity, %	<	0.45	0.2	GEA Niro method No. A 19 a

Heavy Metals

Arsenic, ppm	<	0.5	0.02	AOAC 986.15 18th Ed., page 9.1.01
Lead, ppm	<	0.25	0.018	AOAC 986.15 18th Ed., page 9.1.01
Mercury, ppm	<	0.05	0.03	AOAC 952.14 18th Ed., page 9.2.25
Cadmium, ppm	<	0.049	0.04	AOAC 986.15 18th Ed., page 9.1.01

Physical Properties

Appearance	Transparent green liquid	Pass	Visual
Odor	Creamy	Pass	Organoleptic
Taste	Characteristic	Pass	Organoleptic
Solubility	Liquid	Pass	Visual

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Other Minor Components not quantified

Beta 2- microglobulin, Enzymes, Haemopexin, Haptoglobin, Orotic Acid, Peroxidase, Xanthine Oxidase Enzyme, Gonadotropin-Releasing Hormone (GnRH), Prolactin, Insulin, Sulfur, Glycoproteins: - (Including Protease and Trypsin Inhibitors), Lactalbumin, Multimeric α -Lactalbumin, Cytokines, Lysozymes, Gamma Globulin, B Lactoglobulin, Complement 3 & 4 (C3 & C4), Kappa Casein, Alpha 2-AP glycoprotein, Alpha 1- antitrypsin, Alpha 2- macroglobulin, Orosomucoids, Prealbumin, Albumin, Oligosaccharides, Non Specific Inhibitors (NSI's), Secretory IgA (SigA), IgA Specific Helper

Packaging, Shipping and Storage

Immulox is packaged in 2.5 oz, 4 oz, and 5 oz bottles with 0.7ml spray dispenser. The 4 oz and 5 oz bottles are packaged 20 to a box, and the 2.5 oz are packaged 30 to a box. Store at 15-30°C (59-86°F). Avoid exposure to direct sunlight. Use within 30-45 days after opening and refrigerate after opening in warm climates.

* Where not specified results are reported on "as is" basis.