

Prolacta Bioscience: Leading the Industry in Human Milk–Based Nutritional Products, Not All Human Milk Products Are Equal



Vat pasteurization

Proprietary process following the U.S. Food and Drug Administration's Pasteurized Milk Ordinance to inactivate pathogens and preserve bioactive components in human milk.¹

Retort sterilization

Commercial canning process known to destroy bioactive components and inactivate pathogens in human milk.^{2,3}

Homogenization

Physical process used to break down milk fat globules inhibiting their function. May alter absorption of long-chain fatty acids, which are important for neurological development.²⁻⁴ The implications of these changes for infant health have not been adequately investigated.

Leading the Industry in Retaining Human Milk's Bioactivity – Bioactivity matters for immunity, development, growth, and long-term health⁵

	Prolacta	Others
	Vat pasteurized; NOT homogenized	Retort sterilized & homogenized
Greater retention of lactoferrin Protects against infection through iron sequestration and lysing of bacterial cell walls; exhibits antioxidant and anti-inflammatory properties; decreases risk of late-onset sepsis and necrotizing enterocolitis in preterm infants. ⁶⁻¹⁰	✓	✗
Greater retention of immunoglobulins Protects against bacterial and viral infections by binding pathogens, neutralizing toxins and viruses, and blocking colonization and penetration of pathogens. ^{6,7,11,12}	✓	✗
Greater retention of lysozyme Protects against infection by degrading the proteoglycan matrix of the bacterial cell wall; kills gram-positive bacteria, works synergistically with lactoferrin to kill gram-negative bacteria. ^{6,7,11,13,14}	✓	✗
Greater retention of α-lactalbumin Aids in mineral absorption and healthy infant growth patterns; supports development of gastrointestinal tract and growth of beneficial microbes such as bifidobacteria. ^{6,7,15}	✓	✗
Retains integrity of milk fat globule structure Supports the structural and functional maturation of the gastrointestinal tract; helps to modulate the gut microbiota; provides antimicrobial, anti-inflammatory, and prebiotic functions; and promotes cognitive development. ^{6,13,16-19}	✓	✗

Leading the Industry in Safety – Setting the highest standards for collecting human milk and manufacturing nutritional products

	Prolacta	Others
Donor undergoes extensive medical and social screening, as well as blood testing. ^{2,20,21}	✓	✓
Products follow U.S. Food and Drug Administration exempt infant formula regulations. ²²	✓	?

Leading the Industry in Raw Donated Breastmilk Testing – Ensuring only the highest quality of donor human milk is used		
	Prolacta	Others
Milk tested for common drugs of abuse (marijuana, opiates, etc). ^{2,3,21,23}	✓	✓
Milk tested for adulterants (water, other types of milk). ^{2,3,21,23}	✓	✓
Low incidence of <i>Bacillus cereus</i> in incoming milk due to collection best practices. ^{6,24-26}	✓	?
Breastmilk-to-donor DNA matching is confirmed to ensure every ounce of donated breastmilk comes from the qualified, tested, and approved donor. ^{2,3}	✓	?
Milk tested for disease-causing viruses. ^{2,3,21,23}	✓	?
Milk tested for nicotine.	✓	?
Milk tested for microbial contamination including <i>Bacillus cereus</i> at multiple points in the process including prior to processing. ^{2,3,21,23}	✓	?
Maintains stringent raw milk quarantine procedures to ensure that only tested and verified batches of qualified milk are used to create products.	✓	?
Leading the Industry in Final Product Testing – Continual improvements to ensure the latest quality and safety measures		
	Prolacta	Others
Nutritionally standardized ^{2,20}	✓	✓
Microbiological screening ²⁰ Aerobic bacterial counts, <i>Bacillus cereus</i> , <i>Escherichia coli</i> , <i>Salmonella</i> , <i>Pseudomonas</i> , coliforms, <i>Staphylococcus aureus</i> , yeast, mold, and <i>Bacillus cereus</i> emetic toxins.	✓	?
Stringent final container quarantine procedures Final product quarantined until all data are reviewed, verified, and approved by Quality Assurance.	✓	?
Leading the Industry in Evidence-Based Research – Demonstrating the clinical benefits of human milk-based nutritional products		
	Prolacta	Others
Products evaluated in more than 20 peer-reviewed clinical studies. ⁶	✓	✗
Products referenced in published feeding protocols. ^{27,28}	✓	✗
Studies showed:		
Lowered incidence of bronchopulmonary dysplasia (BPD) ²⁹	✓	✗
Lowered incidence and/or severity of retinopathy of prematurity (ROP) ²⁹⁻³²	✓	✗
Adequate growth was achieved ³³⁻³⁵	✓	✗
Reduced incidence of feeding intolerance ³¹	✓	✗
Reduced hospital costs ^{31,36}	✓	✗
Shortened hospital stay by 4.5 days ^{29,31}	✓	✗
Lowered incidence and evaluations of late-onset sepsis ^{29,32}	✓	✗

Associated with lower mortality and morbidity ^{29,37,38}	✓	✗
Full feeds achieved in at least 9 fewer days ³¹	✓	✗
Reduced total parenteral nutrition by 9 days ³⁸	✓	✗
Associated with long-term benefits including neurodevelopment, body composition, and metabolic outcomes ³⁹⁻⁴¹	✓	✗
Reduced incidence of necrotizing enterocolitis (NEC) and surgical NEC ^{38,42}	✓	✗
Leading the Industry in Medical, Scientific, and Financial Support – Helping hospitals to optimize the use of human milk-based nutritional products		
	Prolacta	Others
Reliably delivering products Over 10 years of providing human milk-based nutritional products to neonatal intensive care units (NICUs).	✓	✗
Consultations available from healthcare professionals and research scientists Neonatologists, infectious disease physicians, nurse practitioners, nurses, dietitians, medical science liaisons, human milk scientists, medical researchers, and statisticians on staff and available for consultation.	✓	?
Assistance with healthcare financial management Healthcare Financial Management Association (HFMA) – certified consultants available to customer hospitals.	✓	✗
Healthcare provider peer support Nutrition Advisory Committee and Nursing Practice Advisory Council members from hospitals provide best practices, hold classes, and are available as resources.	✓	✗
Accredited continuing education programs	✓	✗
NICU staff support Detailed in-servicing provided by clinical sales specialists with implementation resources.	✓	✗
Leading the Industry in Parent, Donor, and Community Support		
	Prolacta	Others
Educating parents in the NICU with printed and online materials, along with the Peek-a-Boo ICU app.	✓	?
Supporting more than 50 parent and professional organizations advocating on behalf of preterm and term infants throughout the world.	✓	?
Donor counseling⁶ Engaged online donor community that reports a high level of donor satisfaction.	✓	?
Donors are offered a choice of remuneration or charitable donation for their time and effort. ^{2,6,21}	✓	✗
Supporting community organizations through product and monetary donations, including the Prolacta Bioscience Foundation that has more than 20 nonprofit organizations championing these important causes. ⁶	✓	✗

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