

Nutrition Information

100% Human Milk–Based Neonatal Nutritional Products From
Prolacta Bioscience



What is an exclusive human milk diet?

EHMD

An EHMD is achieved when 100% of protein, fat, and carbohydrate are derived from human milk. This diet includes a human milk-based human milk fortifier.

An EHMD for very low birth weight babies supports adequate growth,¹ can contribute to increased survival rates,² and can decrease costly complications associated with the intake of cow milk-based products.^{3,4,*}

*For babies weighing ≤1250 g. Outcome measures were statistically based on mean weight data.

References:

1. Hair AB, Hawthorne KM, Chetta KE, Abrams SA. Human milk feeding supports adequate growth in infants ≤1250 grams birth weight. *BMC Res Notes*. 2013;6:459. doi:10.1186/1756-0500-6-459
2. Abrams SA, Schanler RJ, Lee ML, Rechtman DJ. Greater mortality and morbidity in extremely preterm infants fed a diet containing cow milk protein products. *Breastfeed Med*. 2014;9(6):281-285. doi:10.1089/bfm.2014.0024
3. Hair AB, Peluso AM, Hawthorne KM, et al. Beyond necrotizing enterocolitis prevention: improving outcomes with an exclusive human milk-based diet [published correction appears in *Breastfeed Med*. 2017;12(10):663]. *Breastfeed Med*. 2016;11(2):70-74. doi:10.1089/bfm.2015.0134
4. Ganapathy V, Hay JW, Kim JH. Costs of necrotizing enterocolitis and cost-effectiveness of exclusively human milk-based products in feeding extremely premature infants. *Breastfeed Med*. 2012;7(1):29-37. doi:10.1089/bfm.2011.0002

All Neonatal Nutritional Products From Prolacta Are 100% Human Milk–Based



Prolacta is committed to helping healthcare providers meet the nutritional needs of extremely premature infants in the neonatal intensive care unit (NICU). In an effort to support clinical decision-making for an exclusive human milk diet (EHMD), we are providing detailed information on the nutrients in our full line of 100% human milk–based neonatal nutritional products.

When mixed with mother's own milk (MOM) or donor human milk, Prolacta's human milk–based human milk fortifiers provide nutrition that falls within the recommendations established by the American Academy of Pediatrics (AAP).¹ The products contain protein, fat, and carbohydrate derived from pasteurized donated human milk, with essential minerals added.[‡]

Prolact HM® human milk (human, pasteurized) and Premielact® human milk for trophic feeds (pasteurized) are standardized and can be used when MOM is unavailable. They contain protein, fat, and carbohydrate, with no minerals added.

Prolact CR® human milk caloric fortifier (human, pasteurized) is pasteurized human milk cream with no minerals added.

Prolact RTF human milk–based premature infant formula is standardized to ensure predictable delivery of nutrients. The product contains protein, fat, and carbohydrate derived from pasteurized donated human milk, with essential minerals added.[‡]

Although we can provide the nutritional information for our products, we recognize that there is no single source of information that establishes nutritional values for human milk. Thus, to help with the preparation of a feeding solution with Prolacta's fortifiers, we have provided these nutritional references for preterm milk and term milk:

- Preterm milk values are adapted from *Nutritional Care of Preterm Infants: Scientific Basis and Practical Guidelines*.²
- Term milk values are adapted from the AAP handbook entitled *Pediatric Nutrition*.¹

We do not add vitamins, iron, manganese, iodine, or selenium to any of our products. Vitamins in human milk vary naturally, and the amounts present in Prolacta's products are further affected by manufacturing processes. The amounts of fat, protein, carbohydrate, and minerals (except for iodine and selenium) are based on median values derived from multiple

lots, while the concentrations of vitamins,[†] iodine, and selenium are based on values derived from an individual lot or a composite of multiple lots.

An EHMD requires nutritional supplementation. Any required additional vitamins and iron must be administered separately from Prolacta's products.

The values presented in this brochure are for reference only. Regular nutrition monitoring is required, and appropriate medical judgment should always be exercised when using feeding guidelines. For more information about Prolacta's products and providing an EHMD, please contact your Prolacta representative.



[‡]Sodium, potassium, chloride, calcium, phosphorus, magnesium, copper, and zinc.

[†]Vitamin A, vitamin D, vitamin E, vitamin K, biotin, thiamine, riboflavin, vitamin B₆, vitamin B₁₂, niacin, folate, pantothenic acid, and vitamin C.

References

1. American Academy of Pediatrics Committee on Nutrition. Appendix A. In: Kleinman RE, Greer FR, eds. *Pediatric Nutrition*. 8th ed. Itasca, IL: American Academy of Pediatrics; 2019:1505-1508.
2. Koletzko B, Wiecek S, Cheah FC, Domellof M, van Goudoever JB, Poindexter BB, Vain N. Recommended Nutrient Intake Levels for Preterm Infants. *World Rev Nutr Diet*. 2021;122:191-197. doi:10.1159/000514772

Prolact+4® (20 mL) Nutrition Information

When Mixed With Preterm Human Milk



The nutrient values below are provided for general reference only. They are based on median values derived from multiple lots or values derived from a composite of multiple lots for the fortifier and the published reference regarding preterm human milk.[§] The values are standardized.

Prolact+4 fortifier is available in a lower-volume 10 mL solution. When mixed, the lower volume of fortifier is half the volume but provides the same amount of nutrients per 100 mL of fortified milk.



Nutrient	Unit	Preterm Human Milk per 100 mL ¹	Preterm Human Milk per 80 mL ¹	Prolact+4 per 20 mL	Preterm Human Milk Fortified With Prolact+4 per 100 mL	Preterm Human Milk Fortified With Prolact+4 per 100 kcal
Volume	mL	100.0	80.0	20.0	100.0	120.5
Calories	kcal	67.0	53.6	29.4	83.0	100.0
Kilojoules	kJ	280.1	224.1	122.9	347.0	418.1
Protein	g	1.6	1.3	1.2	2.5	3.0
Fat	g	3.5	2.8	1.9	4.7	5.7
Carbohydrate	g	7.3	5.8	1.9	7.7	9.3
Vitamins						
Vitamin A, Retinol	mcg	14.4	11.5	11.5	23.0	27.7
Vitamin A, Retinol	IU	48.0	38.4	38.3	76.7	92.4
Vitamin D	mcg	0.2	0.2	0.0	0.2	0.2
Vitamin D	IU	8.0	6.4	1.6	8.0	9.6
Vitamin E	mg	0.3	0.2	0.1	0.3	0.4
Vitamin E	IU	0.4	0.3	0.1	0.4	0.5
Vitamin K ^{2,3}	mcg	0.3	0.2	**	0.2	0.2
Vitamin C	mg	4.4	3.5	**	3.5	4.2
Vitamin B1, Thiamine	mcg	8.9	7.1	1.2	8.3	10.0
Vitamin B2, Riboflavin	mcg	27.0	21.6	3.8	25.4	30.6
Vitamin B3, Niacin	mg	0.2	0.2	0.0	0.2	0.2
Vitamin B5, Pantothenic Acid	mg	0.2	0.2	0.0	0.2	0.2
Vitamin B6, Pyridoxine	mcg	6.2	5.0	**	5.0	6.0
Vitamin B7, Biotin	mcg	0.5	0.4	**	0.4	0.5
Vitamin B9, Folate	mcg	3.1	2.5	2.5	5.0	6.0
Vitamin B12, Cobalamin	mcg	0.0	0.0	**	0.0	0.0
Minerals						
Sodium	mg	28.0	22.4	46.2	68.6	82.7
Potassium	mg	50.0	40.0	52.6	92.6	111.6
Chloride	mg	58.0	46.4	59.6	106.0	127.7
Calcium	mg	25.0	20.0	103.8	123.8	149.2
Phosphorus	mg	14.5	11.6	55.1	66.7	80.4
Magnesium	mg	3.3	2.6	5.9	8.5	10.2
Iron	mg	0.1	0.1	0.0	0.1	0.1
Zinc	mg	0.4	0.3	1.2	1.5	1.8
Copper	mcg	38.0	30.4	87.3	117.7	141.8
Iodine	mcg	17.8	14.2	5.0	19.2	23.1
Selenium	mcg	2.4	1.9	2.1	4.0	4.8
Manganese	mcg	0.4	0.3	5.6	5.9	7.1
Prolact+4 fortifier mixed with Prolacta's HM: 366 mOsm/kg						

§Nutrient contributions from Prolacta's fortifier are based on median values derived from multiple lots (macronutrients and minerals, except iodine and selenium) or values derived from a composite of multiple lots (vitamins, iodine, and selenium).

**Not a significant source of this nutrient.

1. Koletzko B, Wiecek S, Cheah FC, Domellöf M, van Goudoever JB, Poindexter BB, Vain N. Recommended Nutrient Intake Levels for Preterm Infants. *World Rev Nutr Diet.* 2021;122:191-197. doi:10.1159/000514772

2. Tsang RC, Uauy R, Koletzko B, Zlotkin SH, eds. *Nutrition of the preterm infant: scientific basis and practical guidelines.* 2nd ed. Cincinnati, OH: Digital Educational Publishing, Inc;2005:144.

3. Bolisetty S, Gupta JM, Graham GG, Saloniak C, Naidoo D. Vitamin K in preterm breastmilk with maternal supplementation. *Acta Paediatr.* 1998;87(9):960-962. doi:10.1080/080352598750031626

Prolact+4® (20 mL) Nutrition Information

When Mixed With Term Human Milk



The nutrient values below are provided for general reference only. They are based on median values derived from multiple lots or values derived from a composite of multiple lots for the fortifier and the published reference regarding term human milk.[§] The values are standardized.

Prolact+4 fortifier is available in a lower-volume 10 mL solution. When mixed, the lower volume of fortifier is half the volume but provides the same amount of nutrients per 100 mL of fortified milk.



Nutrient	Unit	Term Human Milk per 100 mL ¹	Term Human Milk per 80 mL ¹	Prolact+4 per 20 mL	Term Human Milk Fortified With Prolact+4 per 100 mL	Term Human Milk Fortified With Prolact+4 per 100 kcal
Volume	mL	100.0	80.0	20.0	100.0	119.9
Calories	kcal	67.5	54.0	29.4	83.4	100.0
Kilojoules	kJ	282.2	225.8	122.9	348.7	418.1
Protein	g	0.9	0.7	1.2	1.9	2.3
Fat	g	3.5	2.8	1.9	4.7	5.6
Carbohydrate	g	8.2	6.6	1.9	8.5	10.2
Vitamins						
Vitamin A, Retinol	mcg	45.0	36.0	11.5	47.5	57.0
Vitamin A, Retinol	IU	149.9	119.9	38.3	158.2	189.7
Vitamin D	mcg	0.0	0.0	0.0	0.0	0.0
Vitamin D	IU	0.0	0.0	1.6	1.6	1.9
Vitamin E	mg	0.6	0.5	0.1	0.6	0.7
Vitamin E	IU	0.9	0.7	0.1	0.8	1.0
Vitamin K	mcg	0.3	0.2	**	0.2	0.2
Vitamin C	mg	10.0	8.0	**	8.0	9.6
Vitamin B1, Thiamine	mcg	20.0	16.0	1.2	17.2	20.6
Vitamin B2, Riboflavin	mcg	50.0	40.0	3.8	43.8	52.5
Vitamin B3, Niacin	mg	0.4	0.3	0.0	0.3	0.4
Vitamin B5, Pantothenic Acid	mg	0.2	0.2	0.0	0.2	0.2
Vitamin B6, Pyridoxine	mcg	20.0	16.0	**	16.0	19.2
Vitamin B7, Biotin	mcg	0.7	0.6	**	0.6	0.7
Vitamin B9, Folate	mcg	11.0	8.8	2.5	11.3	13.5
Vitamin B12, Cobalamin	mcg	0.1	0.1	**	0.1	0.1
Minerals						
Sodium	mg	18.5	14.8	46.2	61.0	73.1
Potassium	mg	47.5	38.0	52.6	90.6	108.6
Chloride	mg	42.5	34.0	59.6	93.6	112.2
Calcium	mg	22.5	18.0	103.8	121.8	146.0
Phosphorus	mg	13.0	10.4	55.1	65.5	78.5
Magnesium	mg	3.3	2.6	5.9	8.5	10.2
Iron	mg	0.1	0.1	0.0	0.1	0.1
Zinc	mg	0.2	0.2	1.2	1.4	1.7
Copper	mcg	30.0	24.0	87.3	111.3	133.4
Iodine	mcg	15.0	12.0	5.0	17.0	20.4
Selenium	mcg	2.0	1.6	2.1	3.7	4.4
Manganese	mcg	0.3	0.2	5.6	5.8	7.0
Prolact+4 fortifier mixed with Prolacta's HM: 366 mOsm/kg						

[§]Nutrient contributions from Prolacta's fortifier are based on median values derived from multiple lots (macronutrients and minerals, except iodine and selenium) or values derived from a composite of multiple lots (vitamins, iodine, and selenium). Nutrient contributions from term human milk are average or representative values drawn from Reference 1.

**Not a significant source of this nutrient.

1. American Academy of Pediatrics Committee on Nutrition. Appendix A. In: Kleinman RE, Greer FR, eds. *Pediatric Nutrition*. 8th ed. Itasca, IL: American Academy of Pediatrics; 2019:1505-1508.

Prolact+6® (30 mL) Nutrition Information

When Mixed With Preterm Human Milk



The nutrient values below are provided for general reference only. They are based on median values derived from multiple lots or values derived from a composite of multiple lots for the fortifier and the published reference regarding preterm human milk.[§] The values are standardized.

Prolact+6 fortifier is available in a lower-volume 15 mL solution. When mixed, the lower volume of fortifier is half the volume but provides the same amount of nutrients per 100 mL of fortified milk.



Nutrient	Unit	Preterm Human Milk per 100 mL ¹	Preterm Human Milk per 70 mL ¹	Prolact+6 per 30 mL	Preterm Human Milk Fortified With Prolact+6 per 100 mL	Preterm Human Milk Fortified With Prolact+6 per 100 kcal
Volume	mL	100.0	70.0	30.0	100.0	110.4
Calories	kcal	67.0	46.9	43.7	90.6	100.0
Kilojoules	kJ	280.1	196.1	182.7	378.8	418.2
Protein	g	1.6	1.1	1.8	2.9	3.2
Fat	g	3.5	2.5	2.9	5.4	6.0
Carbohydrate	g	7.3	5.1	2.7	7.8	8.6
Vitamins						
Vitamin A, Retinol	mcg	14.4	10.1	13.9	24.0	26.5
Vitamin A, Retinol	IU	48.0	33.6	46.1	79.7	88.0
Vitamin D	mcg	0.2	0.1	0.1	0.2	0.2
Vitamin D	IU	8.0	5.6	2.4	8.0	8.8
Vitamin E	mg	0.3	0.2	0.1	0.3	0.3
Vitamin E	IU	0.4	0.3	0.2	0.5	0.6
Vitamin K ^{2,3}	mcg	0.3	0.2	**	0.2	0.2
Vitamin C	mg	4.4	3.1	**	3.1	3.4
Vitamin B1, Thiamine	mcg	8.9	6.2	1.8	8.0	8.8
Vitamin B2, Riboflavin	mcg	27.0	18.9	5.8	24.7	27.3
Vitamin B3, Niacin	mg	0.2	0.1	0.0	0.1	0.1
Vitamin B5, Pantothenic Acid	mg	0.2	0.1	0.1	0.2	0.2
Vitamin B6, Pyridoxine	mcg	6.2	4.3	**	4.3	4.7
Vitamin B7, Biotin	mcg	0.5	0.4	**	0.4	0.4
Vitamin B9, Folate	mcg	3.1	2.2	3.9	6.1	6.7
Vitamin B12, Cobalamin	mcg	0.0	0.0	**	0.0	0.0
Minerals						
Sodium	mg	28.0	19.6	48.0	67.6	74.6
Potassium	mg	50.0	35.0	57.6	92.6	102.2
Chloride	mg	58.0	40.6	63.9	104.5	115.4
Calcium	mg	25.0	17.5	107.5	125.0	138.0
Phosphorus	mg	14.5	10.2	57.6	67.8	74.9
Magnesium	mg	3.3	2.3	6.7	9.0	9.9
Iron	mg	0.1	0.1	0.0	0.1	0.1
Zinc	mg	0.4	0.3	1.2	1.5	1.7
Copper	mcg	38.0	26.6	89.0	115.6	127.6
Iodine	mcg	17.8	12.5	7.0	19.5	21.5
Selenium	mcg	2.4	1.7	2.8	4.5	5.0
Manganese	mcg	0.4	0.3	5.5	5.8	6.4
Prolact+6 fortifier mixed with Prolacta's HM: 374 mOsm/kg						

§Nutrient contributions from Prolacta's fortifier are based on median values derived from multiple lots (macronutrients and minerals, except iodine and selenium) or values derived from a composite of multiple lots (vitamins, iodine, and selenium).

**Not a significant source of this nutrient.

1. Koletzko B, Wiczorek S, Cheah FC, Demello M, van Goudoever JB, Poindexter BB, Vain N. Recommended Nutrient Intake Levels for Preterm Infants. *World Rev Nutr Diet.* 2021;122:191-197. doi:10.1159/000514772

2. Tsang RC, Uauy R, Koletzko B, Zlotkin SH, eds. *Nutrition of the preterm infant: scientific basis and practical guidelines.* 2nd ed. Cincinnati, OH: Digital Educational Publishing, Inc;2005:144.

3. Bolisetty S, Gupta JM, Graham GG, Saloniak C, Naidoo D. Vitamin K in preterm breastmilk with maternal supplementation. *Acta Paediatr.* 1998;87(9):960-962. doi:10.1080/080352598750031626

Prolact+6® (30 mL) Nutrition Information

When Mixed With Term Human Milk



The nutrient values below are provided for general reference only. They are based on median values derived from multiple lots or values derived from a composite of multiple lots for the fortifier and the published reference regarding term human milk.[§] The values are standardized.

Prolact+6 fortifier is available in a lower-volume 15 mL solution. When mixed, the lower volume of fortifier is half the volume but provides the same amount of nutrients per 100 mL of fortified milk.



Nutrient	Unit	Term Human Milk per 100 mL ¹	Term Human Milk per 70 mL ¹	Prolact+6 per 30 mL	Term Human Milk Fortified With Prolact+6 per 100 mL	Term Human Milk Fortified With Prolact+6 per 100 kcal
Volume	mL	100.0	70.0	30.0	100.0	109.9
Calories	kcal	67.5	47.3	43.7	91.0	100.0
Kilojoules	kJ	282.2	197.5	182.7	380.2	417.8
Protein	g	0.9	0.6	1.8	2.4	2.6
Fat	g	3.5	2.5	2.9	5.4	5.9
Carbohydrate	g	8.2	5.7	2.7	8.4	9.2
Vitamins						
Vitamin A, Retinol	mcg	45.0	31.5	13.9	45.4	49.9
Vitamin A, Retinol	IU	149.9	104.9	46.1	151.0	165.9
Vitamin D	mcg	0.0	0.0	0.1	0.1	0.1
Vitamin D	IU	0.0	0.0	2.4	2.4	2.6
Vitamin E	mg	0.6	0.4	0.1	0.5	0.5
Vitamin E	IU	0.9	0.6	0.2	0.8	0.9
Vitamin K	mcg	0.3	0.2	**	0.2	0.2
Vitamin C	mg	10.0	7.0	**	7.0	7.7
Vitamin B1, Thiamine	mcg	20.0	14.0	1.8	15.8	17.4
Vitamin B2, Riboflavin	mcg	50.0	35.0	5.8	40.8	44.8
Vitamin B3, Niacin	mg	0.4	0.3	0.0	0.3	0.3
Vitamin B5, Pantothenic Acid	mg	0.2	0.1	0.1	0.2	0.2
Vitamin B6, Pyridoxine	mcg	20.0	14.0	**	14.0	15.4
Vitamin B7, Biotin	mcg	0.7	0.5	**	0.5	0.5
Vitamin B9, Folate	mcg	11.0	7.7	3.9	11.6	12.7
Vitamin B12, Cobalamin	mcg	0.1	0.1	**	0.1	0.1
Minerals						
Sodium	mg	18.5	13.0	48.0	61.0	67.0
Potassium	mg	47.5	33.3	57.6	90.9	99.9
Chloride	mg	42.5	29.8	63.9	93.7	103.0
Calcium	mg	22.5	15.8	107.5	123.3	135.5
Phosphorus	mg	13.0	9.1	57.6	66.7	73.3
Magnesium	mg	3.3	2.3	6.7	9.0	9.9
Iron	mg	0.1	0.1	0.0	0.1	0.1
Zinc	mg	0.2	0.1	1.2	1.3	1.4
Copper	mcg	30.0	21.0	89.0	110.0	120.9
Iodine	mcg	15.0	10.5	7.0	17.5	19.2
Selenium	mcg	2.0	1.4	2.8	4.2	4.6
Manganese	mcg	0.3	0.2	5.5	5.7	6.3
Prolact+6 fortifier mixed with Prolact's HM: 374 mOsm/kg						

[§]Nutrient contributions from Prolact's fortifier are based on median values derived from multiple lots (macronutrients and minerals, except iodine and selenium) or values derived from a composite of multiple lots (vitamins, iodine, and selenium). Nutrient contributions from term human milk are average or representative values drawn from Reference 1.

**Not a significant source of this nutrient.

1. American Academy of Pediatrics Committee on Nutrition. Appendix A. In: Kleinman RE, Greer FR, eds. *Pediatric Nutrition*. 8th ed. Itasca, IL: American Academy of Pediatrics; 2019:1505-1508.

Prolact+8® (40 mL) Nutrition Information

When Mixed With Preterm Human Milk



The nutrient values below are provided for general reference only. They are based on median values derived from multiple lots or values derived from a composite of multiple lots for the fortifier and the published reference regarding preterm human milk.[§] The values are standardized.

Nutrient	Unit	Preterm Human Milk per 100 mL ¹	Preterm Human Milk per 60 mL ¹	Prolact+8 per 40 mL	Preterm Human Milk Fortified With Prolact+8 per 100 mL	Preterm Human Milk Fortified With Prolact+8 per 100 kcal
Volume	mL	100.0	60.0	40.0	100.0	102.1
Calories	kcal	67.0	40.2	57.7	97.9	100.0
Kilojoules	kJ	280.1	168.1	241.3	409.4	418.1
Protein	g	1.6	1.0	2.4	3.4	3.5
Fat	g	3.5	2.1	3.8	5.9	6.0
Carbohydrate	g	7.3	4.4	3.4	7.8	8.0
Vitamins						
Vitamin A, Retinol	mcg	14.4	8.6	21.3	29.9	30.5
Vitamin A, Retinol	IU	48.0	28.8	70.9	99.7	101.8
Vitamin D	mcg	0.2	0.1	0.1	0.2	0.2
Vitamin D	IU	8.0	4.8	3.2	8.0	8.2
Vitamin E	mg	0.3	0.2	0.2	0.4	0.4
Vitamin E	IU	0.4	0.2	0.2	0.4	0.4
Vitamin K ^{2,3}	mcg	0.3	0.2	**	0.2	0.2
Vitamin C	mg	4.4	2.6	**	2.6	2.7
Vitamin B1, Thiamine	mcg	8.9	5.3	2.6	7.9	8.1
Vitamin B2, Riboflavin	mcg	27.0	16.2	8.6	24.8	25.3
Vitamin B3, Niacin	mg	0.2	0.1	0.0	0.1	0.1
Vitamin B5, Pantothenic Acid	mg	0.2	0.1	0.1	0.2	0.2
Vitamin B6, Pyridoxine	mcg	6.2	3.7	**	3.7	3.8
Vitamin B7, Biotin	mcg	0.5	0.3	**	0.3	0.3
Vitamin B9, Folate	mcg	3.1	1.9	5.2	7.1	7.3
Vitamin B12, Cobalamin	mcg	0.0	0.0	**	0.0	0.0
Minerals						
Sodium	mg	28.0	16.8	54.1	70.9	72.4
Potassium	mg	50.0	30.0	62.2	92.2	94.2
Chloride	mg	58.0	34.8	70.5	105.3	107.5
Calcium	mg	25.0	15.0	110.3	125.3	128.0
Phosphorus	mg	14.5	8.7	59.1	67.8	69.2
Magnesium	mg	3.3	2.0	6.7	8.7	8.9
Iron	mg	0.1	0.1	0.0	0.1	0.1
Zinc	mg	0.4	0.2	1.3	1.5	1.5
Copper	mcg	38.0	22.8	92.1	114.9	117.3
Iodine	mcg	17.8	10.7	10.0	20.7	21.1
Selenium	mcg	2.4	1.4	3.8	5.2	5.3
Manganese	mcg	0.4	0.2	5.7	5.9	6.0
Prolact+8 fortifier mixed with Prolacta's HM: 382 mOsm/kg						

§Nutrient contributions from Prolacta's fortifier are based on median values derived from multiple lots (macronutrients and minerals, except iodine and selenium) or values derived from a composite of multiple lots (vitamins, iodine, and selenium).

**Not a significant source of this nutrient.

1. Koletzko B, Wiczorek S, Cheah FC, Domellof M, van Goudoever JB, Poindexter BB, Vain N. Recommended Nutrient Intake Levels for Preterm Infants. *World Rev Nutr Diet.* 2021;122:191-197. doi:10.1159/000514772

2. Tsang RC, Uauy R, Koletzko B, Zlotkin SH, eds. *Nutrition of the preterm infant: scientific basis and practical guidelines.* 2nd ed. Cincinnati, OH: Digital Educational Publishing, Inc;2005:144.

3. Bolisetty S, Gupta JM, Graham GG, Salonikas C, Naidoo D. Vitamin K in preterm breastmilk with maternal supplementation. *Acta Paediatr.* 1998;87(9):960-962. doi:10.1080/080352598750031626

Prolact+8® (40 mL) Nutrition Information

When Mixed With Term Human Milk



The nutrient values below are provided for general reference only. They are based on median values derived from multiple lots or values derived from a composite of multiple lots for the fortifier and the published reference regarding term human milk.[§] The values are standardized.

Nutrient	Unit	Term Human Milk per 100 mL ¹	Term Human Milk per 60 mL ¹	Prolact+8 per 40 mL	Term Human Milk Fortified With Prolact+8 per 100 mL	Term Human Milk Fortified With Prolact+8 per 100 kcal
Volume	mL	100.0	60.0	40.0	100.0	101.8
Calories	kcal	67.5	40.5	57.7	98.2	100.0
Kilojoules	kJ	282.2	169.3	241.3	410.6	418.0
Protein	g	0.9	0.5	2.4	2.9	3.0
Fat	g	3.5	2.1	3.8	5.9	6.0
Carbohydrate	g	8.2	4.9	3.4	8.3	8.4
Vitamins						
Vitamin A, Retinol	mcg	45.0	27.0	21.3	48.3	49.2
Vitamin A, Retinol	IU	149.9	89.9	70.9	160.8	163.7
Vitamin D	mcg	0.0	0.0	0.1	0.1	0.1
Vitamin D	IU	0.0	0.0	3.2	3.2	3.3
Vitamin E	mg	0.6	0.4	0.2	0.6	0.6
Vitamin E	IU	0.9	0.5	0.2	0.7	0.7
Vitamin K	mcg	0.3	0.2	**	0.2	0.2
Vitamin C	mg	10.0	6.0	**	6.0	6.1
Vitamin B1, Thiamine	mcg	20.0	12.0	2.6	14.6	14.9
Vitamin B2, Riboflavin	mcg	50.0	30.0	8.6	38.6	39.3
Vitamin B3, Niacin	mg	0.4	0.2	0.0	0.2	0.2
Vitamin B5, Pantothenic Acid	mg	0.2	0.1	0.1	0.2	0.2
Vitamin B6, Pyridoxine	mcg	20.0	12.0	**	12.0	12.2
Vitamin B7, Biotin	mcg	0.7	0.4	**	0.4	0.4
Vitamin B9, Folate	mcg	11.0	6.6	5.2	11.8	12.0
Vitamin B12, Cobalamin	mcg	0.1	0.1	**	0.1	0.1
Minerals						
Sodium	mg	18.5	11.1	54.1	65.2	66.4
Potassium	mg	47.5	28.5	62.2	90.7	92.3
Chloride	mg	42.5	25.5	70.5	96.0	97.7
Calcium	mg	22.5	13.5	110.3	123.8	126.0
Phosphorus	mg	13.0	7.8	59.1	66.9	68.1
Magnesium	mg	3.3	2.0	6.7	8.7	8.9
Iron	mg	0.1	0.1	0.0	0.1	0.1
Zinc	mg	0.2	0.1	1.3	1.4	1.4
Copper	mcg	30.0	18.0	92.1	110.1	112.1
Iodine	mcg	15.0	9.0	10.0	19.0	19.3
Selenium	mcg	2.0	1.2	3.8	5.0	5.1
Manganese	mcg	0.3	0.2	5.7	5.9	6.0
Prolact+8 fortifier mixed with Prolact's HM: 382 mOsm/kg						

§Nutrient contributions from Prolact's fortifier are based on median values derived from multiple lots (macronutrients and minerals, except iodine and selenium) or values derived from a composite of multiple lots (vitamins, iodine, and selenium). Nutrient contributions from term human milk are average or representative values drawn from Reference 1.

**Not a significant source of this nutrient.

1. American Academy of Pediatrics Committee on Nutrition. Appendix A. In: Kleinman RE, Greer FR, eds. *Pediatric Nutrition*. 8th ed. Itasca, IL: American Academy of Pediatrics; 2019:1505-1508.

Prolact+10[®] (50 mL) Nutrition Information

When Mixed With Preterm Human Milk



The nutrient values below are provided for general reference only. They are based on median values derived from multiple lots or values derived from a composite of multiple lots for the fortifier and the published reference regarding preterm human milk.[§] The values are standardized.

Nutrient	Unit	Preterm Human Milk per 100 mL ¹	Preterm Human Milk per 50 mL ¹	Prolact+10 per 50 mL	Preterm Human Milk Fortified With Prolact+10 per 100 mL	Preterm Human Milk Fortified With Prolact+10 per 100 kcal
Volume	mL	100.0	50.0	50.0	100.0	95.2
Calories	kcal	67.0	33.5	71.5	105.0	100.0
Kilojoules	kJ	280.1	140.1	298.9	439.0	417.9
Protein	g	1.6	0.8	3.0	3.8	3.6
Fat	g	3.5	1.8	4.7	6.5	6.2
Carbohydrate	g	7.3	3.7	4.1	7.8	7.4
Vitamins						
Vitamin A, Retinol	mcg	14.4	7.2	23.1	30.3	28.8
Vitamin A, Retinol	IU	48.0	24.0	76.9	100.9	96.1
Vitamin D	mcg	0.2	0.1	0.1	0.2	0.2
Vitamin D	IU	8.0	4.0	4.0	8.0	7.6
Vitamin E	mg	0.3	0.2	0.2	0.4	0.4
Vitamin E	IU	0.4	0.2	0.3	0.5	0.5
Vitamin K ^{2,3}	mcg	0.3	0.2	**	0.2	0.2
Vitamin C	mg	4.4	2.2	**	2.2	2.1
Vitamin B1, Thiamine	mcg	8.9	4.5	3.3	7.8	7.4
Vitamin B2, Riboflavin	mcg	27.0	13.5	9.7	23.2	22.1
Vitamin B3, Niacin	mg	0.2	0.1	0.1	0.2	0.2
Vitamin B5, Pantothenic Acid	mg	0.2	0.1	0.1	0.2	0.2
Vitamin B6, Pyridoxine	mcg	6.2	3.1	**	3.1	3.0
Vitamin B7, Biotin	mcg	0.5	0.3	**	0.3	0.3
Vitamin B9, Folate	mcg	3.1	1.6	5.8	7.4	7.0
Vitamin B12, Cobalamin	mcg	0.0	0.0	**	0.0	0.0
Minerals						
Sodium	mg	28.0	14.0	67.3	81.3	77.4
Potassium	mg	50.0	25.0	89.4	114.4	108.9
Chloride	mg	58.0	29.0	96.3	125.3	119.3
Calcium	mg	25.0	12.5	142.0	154.5	147.1
Phosphorus	mg	14.5	7.3	75.7	83.0	79.0
Magnesium	mg	3.3	1.7	8.7	10.4	9.9
Iron	mg	0.1	0.1	0.1	0.2	0.2
Zinc	mg	0.4	0.2	1.6	1.8	1.7
Copper	mcg	38.0	19.0	126.2	145.2	138.2
Iodine	mcg	17.8	8.9	11.0	19.9	18.9
Selenium	mcg	2.4	1.2	4.7	5.9	5.6
Manganese	mcg	0.4	0.2	5.3	5.5	5.2
Prolact+10 fortifier mixed with Prolacta's HM: 403 mOsm/kg						

§Nutrient contributions from Prolacta's fortifier are based on median values derived from multiple lots (macronutrients and minerals, except iodine and selenium) or values derived from a composite of multiple lots (vitamins, iodine, and selenium).

**Not a significant source of this nutrient.

1. Koletzko B, Wiecek S, Cheah FC, Domellof M, van Goudoever JB, Poindexter BB, Vain N. Recommended Nutrient Intake Levels for Preterm Infants. *World Rev Nutr Diet.* 2021;122:191-197. doi:10.1159/000514772

2. Tsang RC, Uauy R, Koletzko B, Zlotkin SH, eds. *Nutrition of the preterm infant: scientific basis and practical guidelines.* 2nd ed. Cincinnati, OH: Digital Educational Publishing, Inc;2005:144.

3. Bolisetty S, Gupta JM, Graham GG, Saloniak C, Naidoo D. Vitamin K in preterm breastmilk with maternal supplementation. *Acta Paediatr.* 1998;87(9):960-962. doi:10.1080/080352598750031626

Prolact+10[®] (50 mL) Nutrition Information

When Mixed With Term Human Milk



The nutrient values below are provided for general reference only. They are based on median values derived from multiple lots or values derived from a composite of multiple lots for the fortifier and the published reference regarding term human milk.[§] The values are standardized.

Nutrient	Unit	Term Human Milk per 100 mL ¹	Term Human Milk per 50 mL ¹	Prolact+10 per 50 mL	Term Human Milk Fortified With Prolact+10 per 100 mL	Term Human Milk Fortified With Prolact+10 per 100 kcal
Volume	mL	100.0	50.0	50.0	100.0	95.0
Calories	kcal	67.5	33.8	71.5	105.3	100.0
Kilojoules	kJ	282.2	141.1	298.9	440.0	418.0
Protein	g	0.9	0.5	3.0	3.5	3.3
Fat	g	3.5	1.8	4.7	6.5	6.2
Carbohydrate	g	8.2	4.1	4.1	8.2	7.8
Vitamins						
Vitamin A, Retinol	mcg	45.0	22.5	23.1	45.6	43.3
Vitamin A, Retinol	IU	149.9	75.0	76.9	151.9	144.3
Vitamin D	mcg	0.0	0.0	0.1	0.1	0.1
Vitamin D	IU	0.0	0.0	4.0	4.0	3.8
Vitamin E	mg	0.6	0.3	0.2	0.5	0.5
Vitamin E	IU	0.9	0.5	0.3	0.8	0.8
Vitamin K	mcg	0.3	0.2	**	0.2	0.2
Vitamin C	mg	10.0	5.0	**	5.0	4.8
Vitamin B1, Thiamine	mcg	20.0	10.0	3.3	13.3	12.6
Vitamin B2, Riboflavin	mcg	50.0	25.0	9.7	34.7	33.0
Vitamin B3, Niacin	mg	0.4	0.2	0.1	0.3	0.3
Vitamin B5, Pantothenic Acid	mg	0.2	0.1	0.1	0.2	0.2
Vitamin B6, Pyridoxine	mcg	20.0	10.0	**	10.0	9.5
Vitamin B7, Biotin	mcg	0.7	0.4	**	0.4	0.4
Vitamin B9, Folate	mcg	11.0	5.5	5.8	11.3	10.7
Vitamin B12, Cobalamin	mcg	0.1	0.1	**	0.1	0.1
Minerals						
Sodium	mg	18.5	9.3	67.3	76.6	72.8
Potassium	mg	47.5	23.8	89.4	113.2	107.5
Chloride	mg	42.5	21.3	96.3	117.6	111.7
Calcium	mg	22.5	11.3	142.0	153.3	145.6
Phosphorus	mg	13.0	6.5	75.7	82.2	78.1
Magnesium	mg	3.3	1.7	8.7	10.4	9.9
Iron	mg	0.1	0.1	0.1	0.2	0.2
Zinc	mg	0.2	0.1	1.6	1.7	1.6
Copper	mcg	30.0	15.0	126.2	141.2	134.1
Iodine	mcg	15.0	7.5	11.0	18.5	17.6
Selenium	mcg	2.0	1.0	4.7	5.7	5.4
Manganese	mcg	0.3	0.2	5.3	5.5	5.2
Prolact+10 fortifier mixed with Prolact's HM: 403 mOsm/kg						

§Nutrient contributions from Prolact's fortifier are based on median values derived from multiple lots (macronutrients and minerals, except iodine and selenium) or values derived from a composite of multiple lots (vitamins, iodine, and selenium). Nutrient contributions from term human milk are average or representative values drawn from Reference 1.

**Not a significant source of this nutrient.

1. American Academy of Pediatrics Committee on Nutrition. Appendix A. In: Kleinman RE, Greer FR, eds. *Pediatric Nutrition*. 8th ed. Itasca, IL: American Academy of Pediatrics; 2019:1505-1508.

Prolact HM® (118 mL), PremieLact® (10 mL), Prolact CR® (10 mL) Nutrition Information

The nutrient values are provided for general reference only. They are based on median values derived from multiple lots. The values are standardized.



NUTRIENTS*		Unit	Prolact HM	PremieLact	Prolact CR		
Volume		mL	100.0	10.0	1.0	10.0	100.0
Calories		kcal	71.6	7.2	2.6	26.2	262.0
Kilojoules		kJ	299.3	29.9	11.0	109.5	1095.2
Protein		g	1.0	0.1	0.0	0.1	0.8
Fat		g	4.1	0.4	0.3	2.6	25.7
Carbohydrate		g	7.6	0.8	0.1	0.7	6.9
Vitamins							
Vitamin A, Retinol		mcg	30.9	3.1			
Vitamin A, Retinol		IU	102.9	10.3			
Vitamin D		mcg	**	**			
Vitamin D		IU	**	**			
Vitamin E		mg	0.3	0.0			
Vitamin E		IU	0.4	0.0			
Vitamin K		mcg	**	**			
Vitamin C		mg	**	**			
Vitamin B1, Thiamine		mcg	5.9	0.6			
Vitamin B2, Riboflavin		mcg	7.0	0.7			
Vitamin B3, Niacin		mg	0.1	0.0			
Vitamin B5, Pantothenic Acid		mg	0.2	0.0			
Vitamin B6, Pyridoxine		mcg	**	**			
Vitamin B7, Biotin		mcg	**	**			
Vitamin B9, Folate		mcg	**	**			
Vitamin B12, Cobalamin		mcg	**	**			
Minerals							
Sodium		mg	8.9	0.9			
Potassium		mg	42.9	4.3			
Chloride		mg	29.5	3.0			
Calcium		mg	26.2	2.6			
Phosphorus		mg	13.0	1.3			
Magnesium		mg	3.1	0.3			
Iron		mg	0.0	0.0			
Zinc		mg	0.1	0.0			
Copper		mcg	20.4	2.0			
Iodine		mcg	12.8	1.3			
Selenium		mcg	1.5	0.2			
Manganese		mcg	**	**			
OSMOLALITY							
		mOsm/kg	290†,1	290†,1	w/ HM 287		

*Nutritional values are median values derived from multiple lots.

**Not a significant source of this nutrient

†Referenced osmolality value for human milk.

1. Sapsford A, Smith C. Enteral Nutrition. In: Grah-Wargo S, Thompson M, Cox JH, eds. *Academy of Nutrition and Dietetics Pocket Guide to Neonatal Nutrition*. 2nd ed. Chicago, Illinois: Academy of Nutrition and Dietetics; 2016:88-89.

Prolact RTF 24/26/28™ (100 mL)

Nutrition Information



The nutrient values are provided for general reference only. They are based on median values derived from multiple lots, values derived from an individual lot, or values derived from a composite of multiple lots. The values are standardized.



NUTRIENTS		Unit	Prolact RTF 24*	Prolact RTF 26†	Prolact RTF 28†
Volume		mL	100.0	100.0	100.0
Calories		kcal	85.0	92.0	99.1
Kilojoules		kJ	355.3	384.6	414.2
Protein		g	2.4	2.7	2.9
Fat		g	4.7	5.4	6.0
Carbohydrate		g	8.2	8.2	8.1
Vitamins					
Vitamin A, Retinol		mcg	27.1	42.2	42.2
Vitamin A, Retinol		IU	90.2	140.5	140.5
Vitamin D		mcg	0.1	**	0.1
Vitamin D		IU	4.0	**	4.0
Vitamin E		mg	0.2	0.2	0.3
Vitamin E		IU	0.3	0.3	0.4
Vitamin K		mcg	**	**	**
Vitamin C		mg	**	**	**
Vitamin B1, Thiamine		mcg	6.2	5.8	5.6
Vitamin B2, Riboflavin		mcg	15.1	16.7	14.8
Vitamin B3, Niacin		mg	0.1	0.1	0.1
Vitamin B5, Pantothenic Acid		mg	0.2	0.2	0.2
Vitamin B6, Pyridoxine		mcg	**	**	**
Vitamin B7, Biotin		mcg	4.4	2.8	**
Vitamin B9, Folate		mcg	5.2	6.3	6.6
Vitamin B12, Cobalamin		mcg	**	**	**
Minerals					
Sodium		mg	58.6	61.4	66.2
Potassium		mg	88.5	91.8	99.9
Chloride		mg	77.1	77.1	77.1
Calcium		mg	126.0	136.2	146.4
Phosphorus		mg	67.5	72.8	79.2
Magnesium		mg	7.3	7.9	8.7
Iron		mg	0.0	0.1	0.1
Zinc		mg	0.8	0.8	0.9
Copper		mcg	84.5	82.4	93.0
Iodine		mcg	12.6	16.8	19.7
Selenium		mcg	3.5	4.0	4.4
Manganese		mcg	5.7	6.2	6.7
OSMOLALITY		mOsm/kg	384.0	383.0	393.0

*Nutritional values are median values derived from multiple lots (macronutrients and minerals, except iodine and selenium) or values derived from an individual lot (vitamins, iodine, and selenium).

**Not a significant source of this nutrient.

†Nutritional values are median values derived from multiple lots (macronutrients and minerals, except iodine and selenium) or values derived from a composite of multiple lots (vitamins, iodine, and selenium).



Pocket

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100% human milk-based neonatal nutritional products,
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