



# PANTHERYX

## Boosted Colostrum Blends

*Natural Health Innovations*

CONFIDENTIAL



# Science-Based, Blends Boosted with Colostrum

All blends are formulated using the finest science-based, potent ingredients. **What makes these formulas even more potent and unique is that they are all boosted with the proven power of Colostrum.** Colostrum offers a multitude of science-backed, health benefits and can boost the functionality, efficacy and absorption of a wide range of products. Pantheryx is the industry leader in Colostrum and offers a wide range of premium colostrum choices. Each formula is carefully paired with a select Colostrum that supports and boosts the effectiveness of the product. Let us put our expertise to work for you.

1. Boosted Digestion Blend
2. Boosted Digestion Caps
3. School Age: Immunity & Wellness Blend
4. School Age: Immunity & Wellness Chewables
5. School Age: Advanced Growth Formula

*A wide range of packaging choices and colostrum types are available. Want to put your unique twist on this? Ask your Sales manager about customizing any blend.*





# Boosted Digestion Blend

- ✓ Prebiotics & Probiotics
- ✓ Fortified with Vitamin B6, Chromium and L-Glutamine
- ✓ Naturally Sweetened
- ✓ Great Taste
- ✓ Mixes Instantly

- ✓ No Added Sugar
- ✓ Non-GMO
- ✓ No Artificial Flavors
- ✓ No Artificial Colors

- Supports healthy digestion & gut health\*
- Promotes regularity\*
- Supports immune function\*
- Supports healthy blood sugar metabolism\*

*A wide range of packaging choices and colostrum types are available. Want to put your unique twist on this? Ask your Sales manager about customizing this potent blend.*

\* This statement has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

**1,000 mg  
Colostrum**

**200 mg  
IgG**

**2,500 mg  
Fiber**

**200 mcg  
Chromium**

**3 Billion  
Probiotic**

## Supplement Facts

Serving Per Container:	x		
<b>Serving Size</b>	<b>1 scoop (7g)</b>		
<b>Amount per serving</b>			
<b>Calories</b>			<b>20</b>
		% Daily Value*	
<b>Total Fat</b>	0 g		0%
<b>Sodium</b>	15 mg		<1%
<b>Total Carbohydrate</b>	5 g		2%
Dietary Fiber	2.5 g		9%
Total Sugars	2 g		*
Includes 0g Added Sugars	0 g		0%
<b>Protein</b>	1 g		1%
Vitamin B6 (as pyridoxine HCL)	20 mg		1176%
Calcium	11 mg		1%
Chromium (as chromium chelate)	200 mcg		571%
Potassium	14 mg		<1%
Colostrum (Pasteurized bovine pre-milk)	1,000 mg		*
Immunoglobulin G (IgG)	200 mg		*
<b>Proprietary Digestion Boosting Complex</b>	4022 mg		*
Fibersol™			
Inulin			
L-Glutamine			
Probiotic Blend (B. subtilis, B. lactis) providing 3 billion CFU**			
* Daily Value not established    ** At time of manufacture			
Other Ingredients: Natural flavors, Maltodextrin, Stevia extract, Silica, Monk fruit extract, Sunflower lecithin			
Allergen: CONTAINS Milk			
NOTE: Supplement Facts is calculated			





# Boosted Digestion Caps



- ✓ Prebiotics & Probiotics
- ✓ Fortified with Vitamin B6, Chromium and L-Glutamine
- ✓ No Added Sugar
- ✓ Non-GMO
- ✓ No Artificial Flavors
- ✓ No Artificial Colors

- Supports healthy digestion & gut health\*
- Promotes regularity\*
- Supports immune function\*
- Supports healthy blood sugar metabolism\*

A wide range of packaging choices and colostrum types are available. Want to put your unique twist on this? Ask your Sales manager about customizing this potent blend.

\* This statement has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

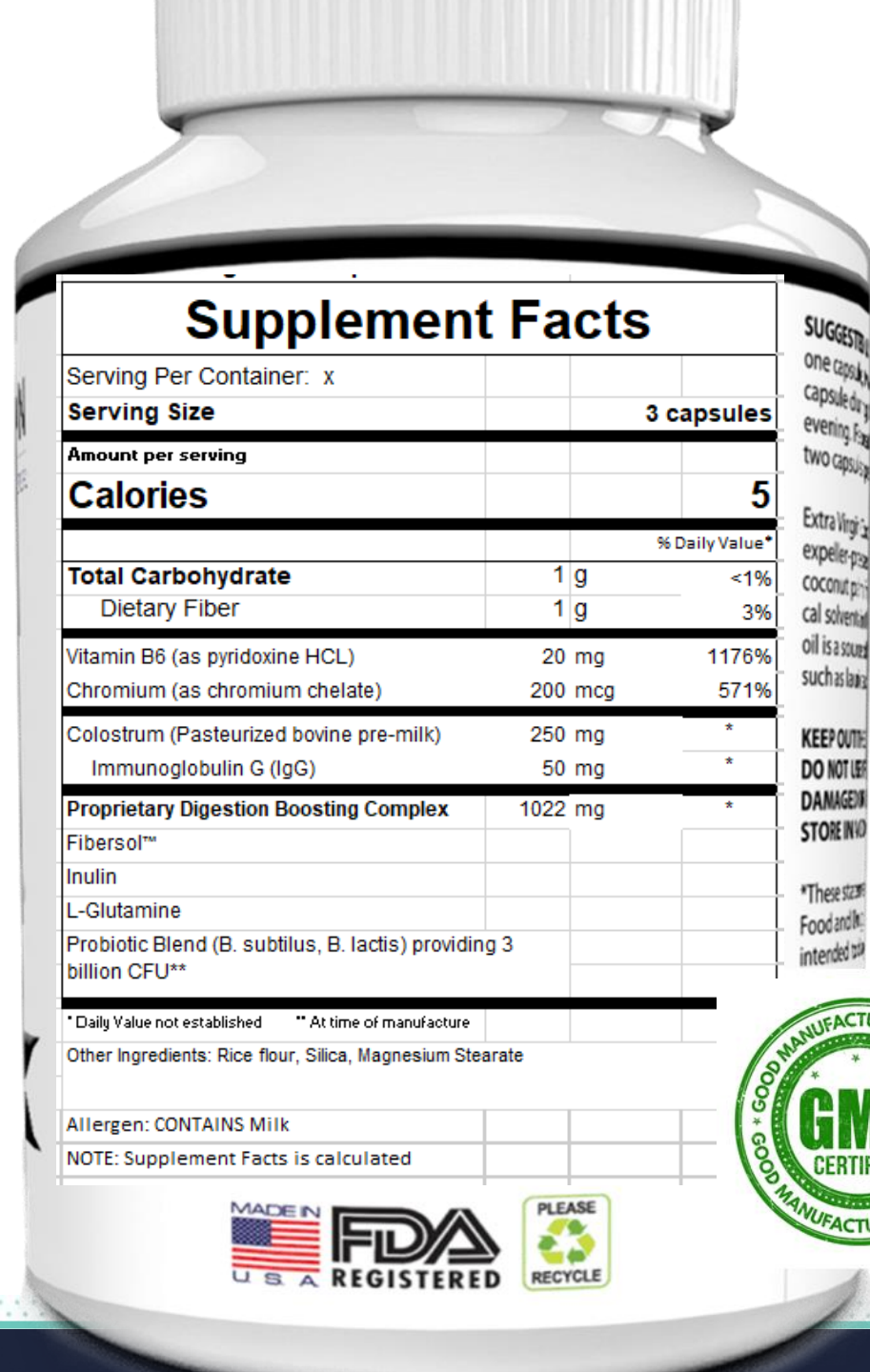
**250 mg**  
**Colostrum**

**50 mg**  
**IgG**

**750 mg**  
**Fiber**

**200 mcg**  
**Chromium**

**3 Billion**  
**Probiotic**





# Boosted School Age Immunity Blend

- ✓ Comprehensive Multi-Vitamin
- ✓ Immune Fortified with Vitamin C, Vitamin D, Zinc, *Elderberry and Colostrum*
- ✓ Choline for Brain Health
- ✓ Naturally Sweetened
- ✓ Great Taste
- ✓ Chewables
- ✓ Non-GMO
- ✓ No Artificial Flavors
- ✓ No Artificial Colors

- Supports immune function\*
- Supports gut health\*

A wide range of packaging choices and colostrum types are available. Want to put your unique twist on this? Ask your Sales manager about customizing this potent blend.

\* This statement has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

500 mg  
Colostrum

100 mg  
IgG

180 mg  
Vitamin C

2000 iu  
Vitamin D

11 mg  
Zinc

## Supplement Facts

Serving Size 1 scoop (42 g)  
Servings Per Container 12

Amount Per Scoop	%DV
<b>Calories</b>	180
Calories from Saturated Fat	0
<b>Total Fat</b>	5 g 6%*
<b>Cholesterol</b>	55 mg 19%
<b>Total Carbohydrate</b>	21 g 8%*
Dietary Fiber	3 g 9%
Total Sugars	7 g †
Includes 6 g Added Sugars	12%*
<b>Protein</b>	10 g
Vitamin A (as vitamin A palmitate)	900 mcg 100%
Vitamin C (as ascorbic acid)	90 mg 100%
Vitamin D (as Cholecalciferol)	50 mcg 250%
Vitamin E (as d alpha tocopheryl)	15 mg 102%
Thiamin (as thiamine hcl)	1.2 mg 100%
Riboflavin	1.3 mg 100%
Niacin (as niacinamide)	8 mg 50%
Vitamin B6 (as pyridoxine hcl)	1.7 mg 100%
Folate	680 mcg DFE 170%
Vitamin B12 (as methylcobalamin)	5 mcg 208%
Biotin	30 mcg 100%
Pantothenic Acid (as d calcium pantothenic acid)	5 mg 100%
Choline (as choline citrate)	5 mg < 1%
Calcium (as dicalcium phosphate)	196 mg 15%
Phosphorus	241 mg 19%
Iodine (from kelp)	150 mcg 100%
Magnesium (as magnesium citrate)	59 mg 14%
Zinc (as zinc citrate)	5 mg 45%
<b>Sodium</b>	75 mg 3%
<b>Pantheryx Growth Booster Complex</b>	1358 mg †
L-Arginine	†
Colostrum (pasteurized bovine pre-milk) providing	†
75mg IgG	†
L-Leucine	†
Omega 3 Pwd (10mg DHA)	†

\* Percent Daily Values (DV) are based on a 2000 calorie diet  
† Daily Value (DV) not established



# Boosted School Age Immunity Chewables

- ✓ Comprehensive Multi-Vitamin
- ✓ Immune Fortified with Vitamin C, Vitamin D, Zinc, Elderberry and Colostrum
- ✓ Choline for Brain Health

- ✓ Naturally Sweetened
- ✓ Great Taste
- ✓ Chewables

- ✓ Non-GMO
- ✓ No Artificial Flavors
- ✓ No Artificial Colors

- Supports immune function\*
- Supports gut health\*

A wide range of packaging choices and colostrum types are available. Want to put your unique twist on this? Ask your Sales manager about customizing this potent blend.

\* This statement has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

**500 mg**  
**Colostrum**

**100 mg**  
**IgG**

**180 mg**  
**Vitamin C**

**2000 iu**  
**Vitamin D**

**11 mg**  
**Zinc**

## Supplement Facts

Serving Size 2 Tablet (2.5 g)  
Servings Per Container 30

Amount Per 2 Tablet	%DV
<b>Calories</b>	5
Calories from Saturated Fat	0
<b>Total Carbohydrate</b>	1 g < 1%*
Total Sugars	1 g †
Includes < 1 g Added Sugars	2%*
Vitamin A (as vitamin A palmitate)	900 mcg 100%
Vitamin C (as ascorbic acid)	180 mg 200%
Vitamin D (as Cholecalciferol)	50 mcg 250%
Vitamin E (as d alpha tocopheryl succinate)	15 mg 100%
Thiamin (as thiamine hcl)	1.2 mg 100%
Riboflavin	1.3 mg 100%
Niacin (as niacinamide)	8 mg 50%
Vitamin B6 (as Pyridoxine)	1.7 mg 100%
Folate (as folic acid)	400 mcg DFE 100%
Vitamin B12 (as methylcobalamin)	4.8 mcg 200%
Biotin	30 mcg 100%
Pantothenic Acid	5 mg 100%
Choline (as choline citrate)	5 mg < 1%
Calcium (as dicalcium phosphate)	26 mg 2%
Phosphorus	48 mg 4%
Iodine (from kelp)	150 mcg 100%
Magnesium (as magnesium citrate)	10 mg 2%
Zinc (as zinc citrate)	11 mg 100%
Colostrum (pasteurized bovine pre-milk)	500 mg †
IgG	100 mg †
Elderberry (fruit)	50 mg †

Colostrum (pasteurized bovine pre-milk)	500 mg	†
IgG	100 mg	†
Elderberry (fruit)	50 mg	†

\* Percent Daily Values (DV) are based on a 2000 calorie diet  
† Daily Value (DV) not established

Other Ingredients: Sugar, Vegetable Stearic Acid, Natural Flavor, Magnesium Stearate, Silicone Dioxide, sunflower lecithin







# Boosted School Age Advanced Growth Formula

- ✓ Comprehensive Multi-Vitamin
- ✓ Immune Boosters Vitamin C, Vitamin D and Zinc
- ✓ Choline & DHA for Brain Health
- ✓ Pantheryx Exclusive Growth Booster Complex with Colostrum
- ✓ Naturally Sweetened
- ✓ Great Taste
- ✓ Non-GMO
- ✓ No Artificial Flavors
- ✓ No Artificial Colors

- Supports healthy growth\*
- Supports immune function\*
- Supports brain health\*
- Supports gut health & regularity\*

A wide range of packaging choices and colostrum types are available. Want to put your unique twist on this? Ask your Sales manager about customizing this potent blend.

\* This statement has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

500 mg  
Colostrum

75 mg  
IgG

10 g  
Protein

3 g  
Fiber

10 mg  
DHA

## Supplement Facts

Serving Size 1 scoop (42 g)

Servings Per Container 12

Amount Per Scoop	%DV
<b>Calories</b>	180
Calories from Saturated Fat	0
<b>Total Fat</b>	5 g <b>6%*</b>
<b>Cholesterol</b>	55 mg <b>19%*</b>
<b>Total Carbohydrate</b>	21 g <b>8%*</b>
Dietary Fiber	3 g 9%
Total Sugars	7 g †
Includes 6 g Added Sugars	12%*
<b>Protein</b>	10 g
Vitamin A (as vitamin A palmitate)	900 mcg 100%
Vitamin C (as ascorbic acid)	90 mg 100%
Vitamin D (as Cholecalciferol)	50 mcg 250%
Vitamin E (as d alpha tocopheryl)	15 mg 102%
Thiamin (as thiamine hcl)	1.2 mg 100%
Riboflavin	1.3 mg 100%
Niacin (as niacinamide)	8 mg 50%
Vitamin B6 (as pyridoxine hcl)	1.7 mg 100%
Folate	680 mcg DFE 170%
Vitamin B12 (as methylcobalamin)	5 mcg 208%
Biotin	30 mcg 100%
Pantothenic Acid (as d calcium pantothenic acid)	5 mg 100%
Choline (as choline citrate)	5 mg < 1%
Calcium (as dicalcium phosphate)	196 mg 15%
Phosphorus	241 mg 19%
Iodine (from kelp)	150 mcg 100%
Magnesium (as magnesium citrate)	59 mg 14%
Zinc (as zinc citrate)	5 mg 45%
<b>Sodium</b>	75 mg <b>3%*</b>
<b>Pantheryx Growth Booster Complex</b>	1358 mg †
L-Arginine	†
Colostrum (pasteurized bovine pre-milk) providing	†
75mg IgG	†
L-Leucine	†
Omega 3 Pwd (10mg DHA)	†

\* Percent Daily Values (DV) are based on a 2000 calorie diet

† Daily Value (DV) not established

Other Ingredients: Protein Blend (Whey Protein Concentrate, Milk Protein Concentrate), Organic Tapioca Maltodextrin, Organic Raw Cane Sugar, Sunflower oil, Natural Flavors, Fiber Blend (Gum Acacia, Pea Fiber), Sunflower Lecithin, Stevia extract, Sea Salt, Monk Fruit Extract, Silicone Dioxide

Contains Milk, Fish



**PANTHERYX**

# Colostrum + Probiotic Combinations

CONFIDENTIAL





# ColostrumOne Synbiotics - *Colostrum plus Probiotic Combinations*



ColostrumOne Synbiotics: ColostrumOne has the power to enable probiotics by promoting their growth and colonization



Only strains with clinical evidence behind them have been included in this evaluation



PanTheryx has demonstrated the stability of select probiotic strains in combination with colostrum from dairy cows



Shelf-life studies with combinations in capsules ongoing to 24mo

Most studied probiotic strain  
*Lactobacillus rhamnosus* LGG®  
Plus ColostrumOne

Most studied Bifidobacterium  
*Bifidobacteria lactis* BB12®  
Plus ColostrumOne

Most studied Bacillus  
*Bacillus subtilis* DE111®  
Plus ColostrumOne

Defendum® combination  
*Lactobacillus plantarum* HEAL9  
*Lactobacillus paracasei* 8700:2  
Plus ColostrumOne

BB12® and LGG® are registered trademarks of Chr. Hansen Holding A/S

Defendum® is a registered trademark of Probi USA Inc.  
DE111® is a registered trademark of Deerland Enzymes, Inc.



# ColostrumOne “Synbiotic-GG”

Globaly most studied probiotic | Lactobacillus rhamnosus LGG® | Plus ColostrumOne

- ✓ The #1 most researched and documented probiotic strain in the world
- ✓ Adding ColostrumOne creates a synbiotic product

- ✓ Immunoglobulins and immune factors in colostrum improve intestinal environment and support probiotic colonization
- ✓ Oligosaccharides in colostrum support growth of probiotics

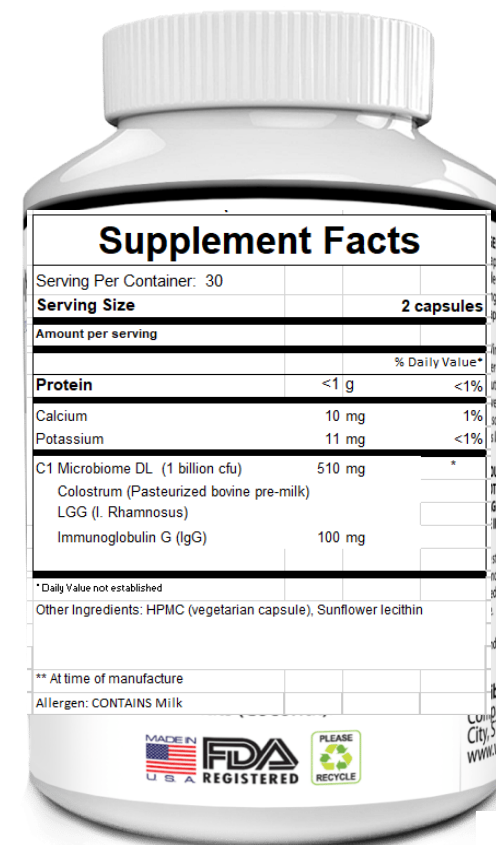
## Clinical Data (sample, not all inclusive):

- Children
  - Supports normal bowel and reduces episodes of loose stools<sup>1,2</sup>
  - Helps prevent antibiotic-associated diarrhea<sup>3</sup>
  - Fewer respiratory infections and discomfort<sup>2,4</sup>
  - Improved oral health including reducing pathogenic oral bacteria<sup>5</sup>
- Adults
  - Reduced incidence of traveler’s diarrhea<sup>6</sup>
  - Helps reduce impact of antibiotic-associated diarrhea<sup>7</sup>
  - Increased levels of vaccine-specific antibodies in the body<sup>8</sup>

**500 mg  
Colostrum**

**100 mg  
IgG**

**1 billion  
Probiotics**



### Supplement Facts

Serving Per Container: 30

**Serving Size** 2 capsules

Amount per serving

% Daily Value\*

**Protein** <1 g <1%

Calcium 10 mg 1%

Potassium 11 mg <1%

C1 Microbiome DL (1 billion cfu) 510 mg \*

Colostrum (Pasteurized bovine pre-milk)

LGG (L. Rhamnosus)

Immunoglobulin G (IgG) 100 mg

\*Daily Value not established

Other Ingredients: HPMC (vegetarian capsule), Sunflower lecithin

\*\* At time of manufacture

Allergen: CONTAINS Milk





# ColostrumOne “Synbiotic-GG”

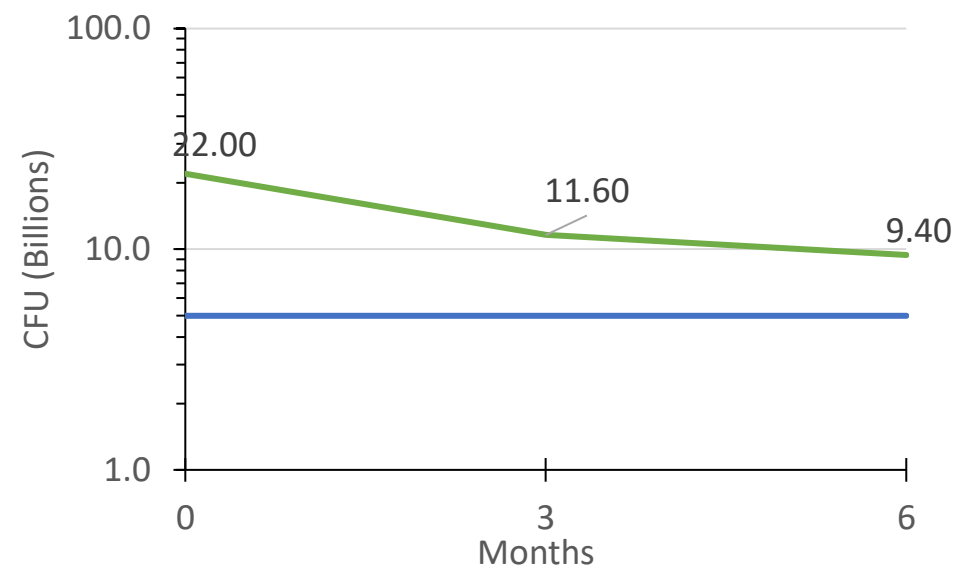
Globaly most studied probiotic | Lactobacillus rhamnosus LGG® | Plus ColostrumOne

## CLINICAL REFERENCES

1. Van Niel, Cornelius W., et al. "Lactobacillus therapy for acute infectious diarrhea in children: a meta-analysis." Pediatrics 109.4 (2002): 678-684.
2. Hojsak, Iva, et al. "Lactobacillus GG in the prevention of nosocomial gastrointestinal and respiratory tract infections." Pediatrics 125.5 (2010): e1171-e1177.
3. Vanderhoof, Jon A., et al. "Lactobacillus GG in the prevention of antibiotic-associated diarrhea in children." The Journal of pediatrics 135.5 (1999): 564-568.
4. Hojsak, Iva, et al. "Lactobacillus GG in the prevention of gastrointestinal and respiratory tract infections in children who attend day care centers: a randomized, double-blind, placebo-controlled trial." Clinical Nutrition 29.3 (2010): 312-316.
5. Näse, Leena, et al. "Effect of long-term consumption of a probiotic bacterium, Lactobacillus rhamnosus GG, in milk on dental caries and caries risk in children." Caries research 35.6 (2001): 412-420.
6. Hilton, Eileen, et al. "Efficacy of Lactobacillus GG as a diarrheal preventive in travelers." Journal of Travel Medicine 4.1 (1997): 41-43.
7. Siitonen, Simo, et al. "Effect of Lactobacillus GG yoghurt in prevention of antibiotic associated diarrhoea." Annals of medicine 22.1 (1990): 57-59.
8. Davidson, Lisa E., et al. "Lactobacillus GG as an immune adjuvant for live-attenuated influenza vaccine in healthy adults: a randomized double-blind placebo-controlled trial." European journal of clinical nutrition 65.4 (2011): 501-507.

## STABILITY DATA

LGG\* + ColostrumOne



— Label Claim\* — LGG

\*label claim in prototype  
Study currently ongoing to 24mo





# ColostrumOne “Synbiotic-BB”

Globaly most studied Bifidobacterium | Bifidobacterium *lactis* BB12® | Plus ColostrumOne

- ✓ The #1 most researched and documented Bifidobacterium strain in the world
- ✓ Adding ColostrumOne creates a synbiotic product

- ✓ Immunoglobulins and immune factors in colostrum improve intestinal environment and support probiotic colonization
- ✓ Oligosaccharides in colostrum support growth of probiotics

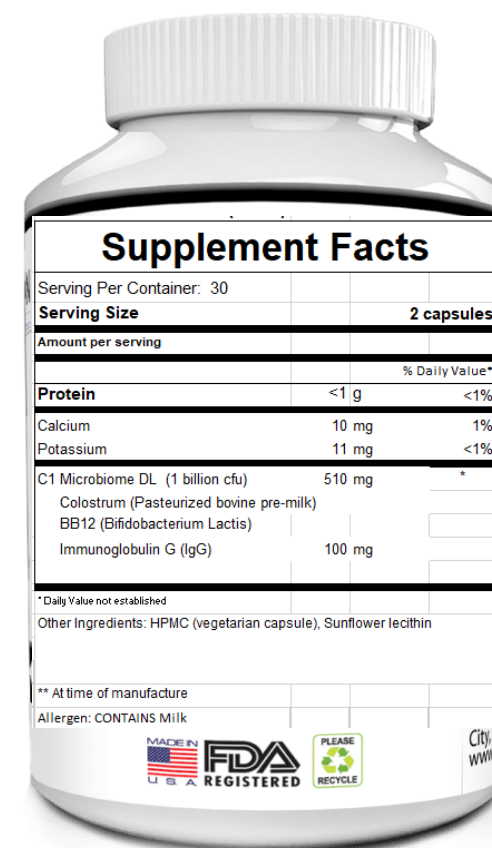
## Clinical Data (sample not all inclusive):

- Children/Infants
  - Associated with reduced incidence of upper respiratory tract infections<sup>1,2</sup>
  - Associated with significantly less excessive crying and fussing, increased sleep duration, and parental quality of life measures<sup>3,4</sup>
  - Reduced instances of red, dry, and scaly skin<sup>5</sup>
- Adults
  - More regular bowel movements<sup>6</sup>
  - Enhanced immune response to vaccination<sup>7</sup>
  - Fewer days with upper respiratory tract infections<sup>8</sup>
- ++ ColostrumOne clinical data in immune and digestive health

500 mg  
Colostrum

100 mg  
IgG

1 billion  
Probiotics



Supplement Facts		
Serving Per Container: 30		
<b>Serving Size</b>	<b>2 capsules</b>	
Amount per serving		
		% Daily Value*
<b>Protein</b>	<1 g	<1%
Calcium	10 mg	1%
Potassium	11 mg	<1%
C1 Microbiome DL (1 billion cfu)	510 mg	*
Colostrum (Pasteurized bovine pre-milk)		
BB12 (Bifidobacterium Lactis)		
Immunoglobulin G (IgG)	100 mg	
* Daily Value not established		
Other Ingredients: HPMC (vegetarian capsule), Sunflower lecithin		
** At time of manufacture		
Allergen: CONTAINS Milk		





# ColostrumOne “Synbiotic-BB”

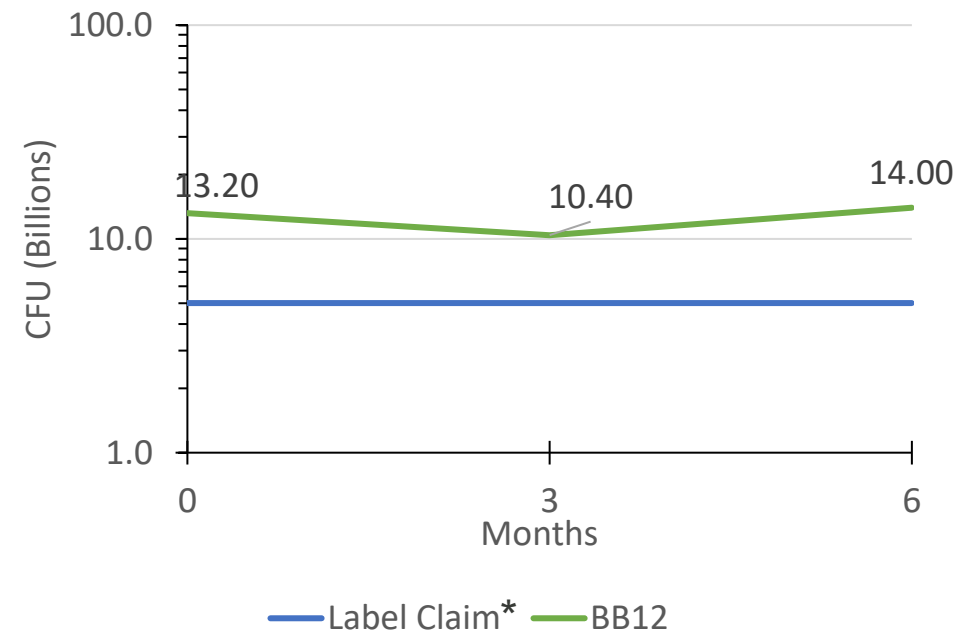
Globaly most studied Bifidobacterium | Bifidobacterium *lactis* BB12® | Plus ColostrumOne

## CLINICAL REFERENCES

1. Taipale, Teemu, et al. "Bifidobacterium animalis subsp. lactis BB-12 in reducing the risk of infections in infancy." British Journal of Nutrition 105.3 (2011): 409-416.
2. Taipale, Teemu J., et al. "Bifidobacterium animalis subsp. lactis BB-12 in reducing the risk of infections in early childhood." Pediatric Research 79.1 (2016): 65-69.
3. Nocerino, Rita, et al. "The therapeutic efficacy of Bifidobacterium animalis subsp. lactis BB-12® in infant colic: A randomised, double blind, placebo-controlled trial." Alimentary pharmacology & therapeutics 51.1 (2020): 110-120.
4. Chen, K., et al. "Efficacy of Bifidobacterium animalis subsp. lactis, BB-12® on infant colic—a randomised, double-blinded, placebo-controlled study." Beneficial microbes 12.6 (2021): 531-540.
5. Isolauri, E. T. Y. E. S., et al. "Probiotics in the management of atopic eczema." Clinical & Experimental Allergy 30.11 (2000): 1605-1610.
6. Eskesen, Dorte, et al. "Effect of the probiotic strain Bifidobacterium animalis subsp. lactis, BB-12®, on defecation frequency in healthy subjects with low defecation frequency and abdominal discomfort: a randomised, double-blind, placebo-controlled, parallel-group trial." British Journal of Nutrition 114.10 (2015): 1638-1646.
7. Rizzardini, Giuliano, et al. "Evaluation of the immune benefits of two probiotic strains Bifidobacterium animalis ssp. lactis, BB-12® and Lactobacillus paracasei ssp. paracasei, L. casei 431® in an influenza vaccination model: a randomised, double-blind, placebo-controlled study." British journal of nutrition 107.6 (2012): 876-884.
8. Meng, Huicui, et al. "Consumption of Bifidobacterium animalis subsp. lactis BB-12 impacts upper respiratory tract infection and the function of NK and T cells in healthy adults." Molecular Nutrition & Food Research 60.5 (2016): 1161-1171.

## STABILITY DATA

BB12\* + ColostrumOne



\*label claim in prototype  
Study currently ongoing to 24mo



# ColostrumOne “Synbiotic-Bacillus”

Globaly most studied *Bacillus* | *Bacillus subtilis* DE111® | Plus ColostrumOne

- ✓ The #1 most researched and documented bacillus in the world
- ✓ The most stable probiotic on the market
- ✓ Adding ColostrumOne creates a synbiotic product

- ✓ Immunoglobulins and immune factors in colostrum improve intestinal environment and support probiotic colonization
- ✓ Oligosaccharides in colostrum support growth of probiotics

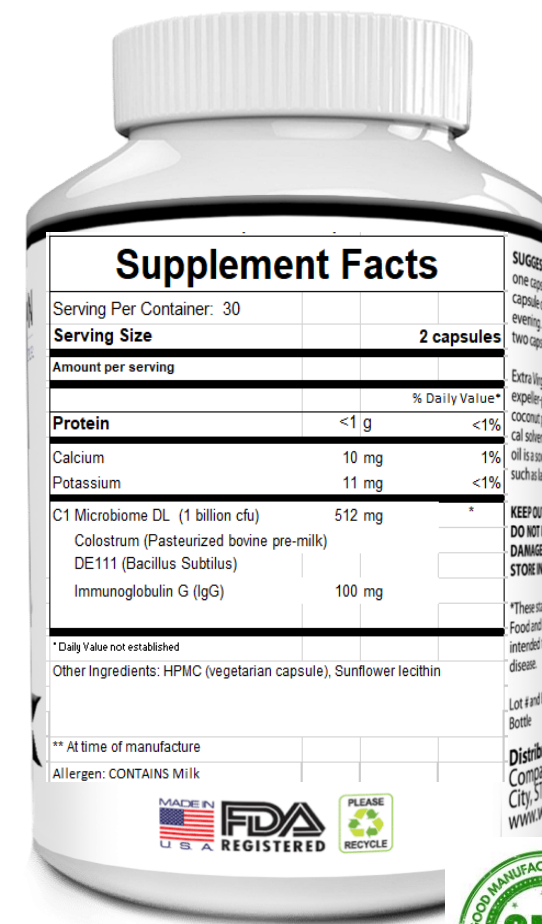
## Clinical Data (not all inclusive):

- Digestion
  - Benefits gut microbiome composition (increased bifidobacteria) in adults<sup>1</sup>
  - In those with regularity issues DE111 increased percentage of normal stools<sup>2</sup>
  - Improved gut microbiome diversity in children<sup>3</sup>
  - Reduction in duration of vomiting, hard stools and GI discomfort in children in a daycare setting<sup>4</sup>
- Immune
  - Increase capacity of immune response in cells from healthy volunteers who consumed DE111 daily<sup>5</sup>
- ++ ColostrumOne clinical data in immune and digestive health

**500 mg  
Colostrum**

**100 mg  
IgG**

**1 billion  
Probiotics**







# ColostrumOne “Synbiotic-Bacillus”

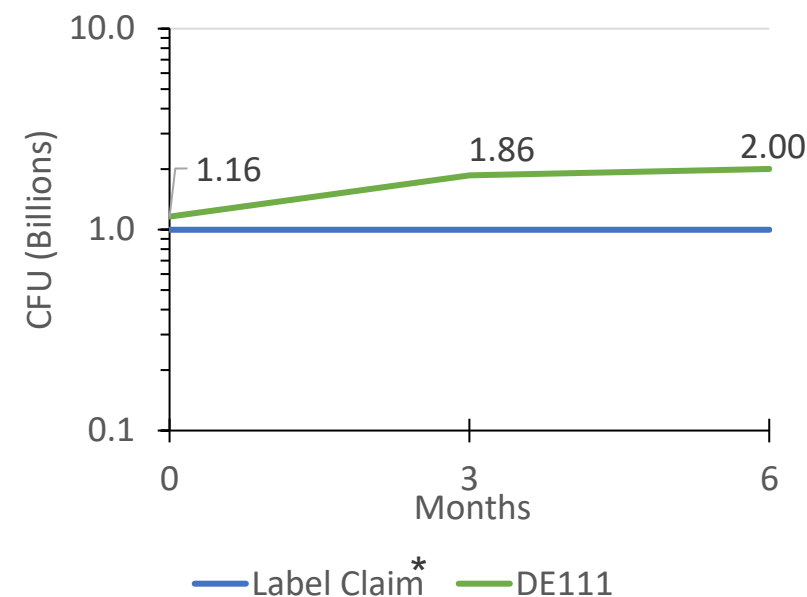
Globaly most studied Bacillus | *Bacillus subtilis* DE111® | Plus ColostrumOne

## CLINICAL REFERENCES

- <sup>1</sup> Labellarte, Gina, and Margaret Maher. "Tolerance and Effect of a Probiotic Supplement Delivered in Capsule Form." Food and Nutrition Sciences 10.6 (2019): 626-634.
- <sup>2</sup> Cuentas, Ana Maria, et al. "The effect of *Bacillus subtilis* DE111 on the daily bowel movement profile for people with occasional gastrointestinal irregularity." Journal of Probiotics and Health 5.4 (2017).
- <sup>3</sup> Paytuví-Gallart, A., W. Sanseverino, and A. M. Winger. "Daily intake of probiotic strain *Bacillus subtilis* DE111 supports a healthy microbiome in children attending day-care." Beneficial Microbes 11.7 (2020): 611-620.
- <sup>4</sup> Slivnik, M., et al. "Effect of Daily *Bacillus subtilis* DE111® Intake on Gastrointestinal Health and Respiratory Infections in Children Attending Day-care: A Randomised, Parallel, Double-blind, Placebo-controlled Study." J Prob Health 8 (2020): 225.
- <sup>5</sup> Freedman, Kimberley E., et al. "Examining the Gastrointestinal and Immunomodulatory Effects of the Novel Probiotic *Bacillus subtilis* DE111." International journal of molecular sciences 22.5 (2021): 2453.

## STABILITY DATA

DE111\* + ColostrumOne



\*label claim in prototype  
Study currently ongoing to 24mo



# ColostrumOne “Synbiotic-LB”

Defendum® combination | *Lactobacillus plantarum* HEAL9 & *Lactobacillus paracasei* 8700:2 | Plus ColostrumOne

- ✓ Well researched lactobacillus strain combination
- ✓ Powerful immune support
- ✓ Very stable strains
- ✓ Adding ColostrumOne creates a synbiotic product

- ✓ Immunoglobulins and immune factors in colostrum improve intestinal environment and support probiotic colonization
- ✓ Oligosaccharides in colostrum support growth of probiotics

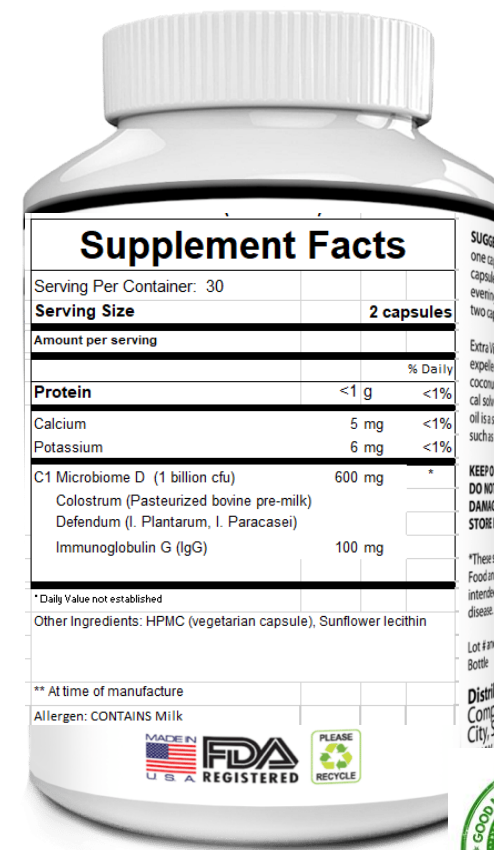
## Clinical Data (not all inclusive):

- ✓ Fewer common cold episodes in healthy adults<sup>1,2</sup>
- ✓ Shorter duration of a common cold episode in healthy adults<sup>1,2,3</sup>
- ✓ Reduction in all common cold symptoms<sup>2</sup>
  - ✓ Congested nose
  - ✓ Sore throat
  - ✓ Cough
  - ✓ Body pain
  - ✓ Runny nose
- ✓ Reduction in severity of common cold in children<sup>4</sup>
- ++ ColostrumOne clinical data in immune and digestive health

**500 mg  
Colostrum**

**100 mg  
IgG**

**1 billion  
Probiotics**



### Supplement Facts

Serving Per Container:	30		
<b>Serving Size</b>		<b>2 capsules</b>	
Amount per serving			
			% Daily
<b>Protein</b>	<1 g		<1%
Calcium	5 mg		<1%
Potassium	6 mg		<1%
C1 Microbiome D (1 billion cfu)	600 mg		*
Colostrum (Pasteurized bovine pre-milk)			
Defendum (L. Plantarum, L. Paracasei)			
Immunoglobulin G (IgG)	100 mg		

\* Daily Value not established

Other Ingredients: HPMC (vegetarian capsule), Sunflower lecithin

\*\* At time of manufacture

Allergen: CONTAINS Milk





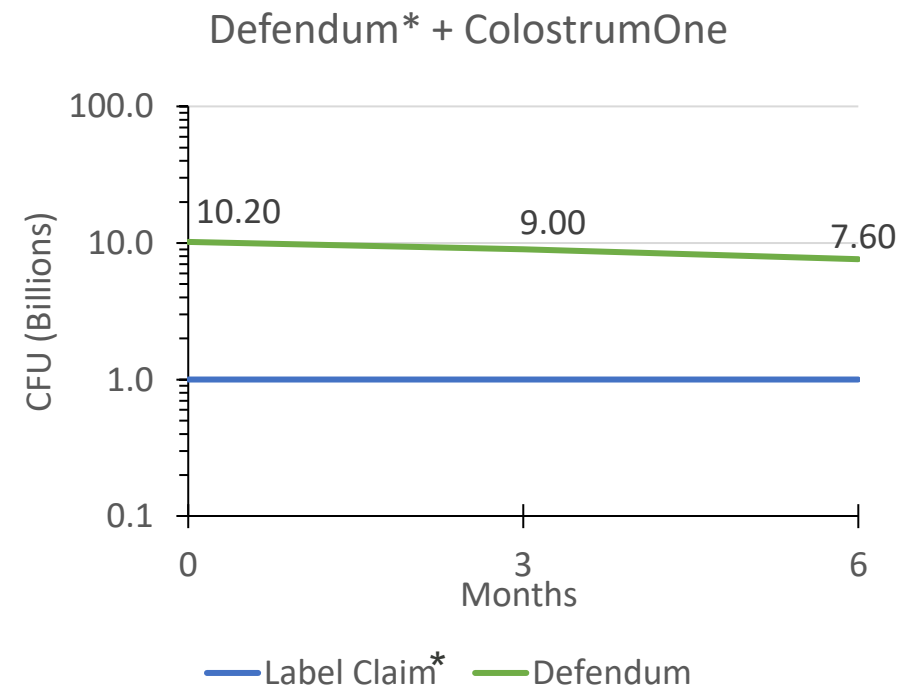
# ColostrumOne “Synbiotic-LB”

Defendum® combination | *Lactobacillus plantarum* HEAL9 & *Lactobacillus paracasei* 8700:2 | Plus ColostrumOne

## CLINICAL REFERENCES

1. Berggren, Anna, et al. "Randomised, double-blind and placebo-controlled study using new probiotic lactobacilli for strengthening the body immune defense against viral infections." *European journal of nutrition* 50.3 (2011): 203-210.
2. Ahrén, Irini Lazou, et al. "Fewer community-acquired colds with daily consumption of *Lactiplantibacillus plantarum* HEAL9 and *Lactocaseibacillus paracasei* 8700: 2. A randomized, placebo-controlled clinical trial." *The Journal of nutrition* 151.1 (2021): 214-222.
3. Regina, Busch, Gruenwald Joerg, and Dudek Steffi. "Randomized, double blind and placebo-controlled study using a combination of two probiotic lactobacilli to alleviate symptoms and frequency of common cold." *Food and Nutrition Sciences* 2013 (2013).
4. Regina, Busch, Gruenwald Joerg, and Dudek Steffi. "Randomized, double blind and placebo controlled study using a combination of two probiotic lactobacilli to alleviate symptoms and frequency of common cold." *Food and Nutrition Sciences* 2013 (2013).
5. Lazou Ahrén, Irini, et al. "Evaluation of the efficacy of *Lactobacillus plantarum* HEAL9 and *Lactobacillus paracasei* 8700: 2 on aspects of common cold infections in children attending day care: a randomised, double-blind, placebo-controlled clinical study." *European Journal of Nutrition* 59.1 (2020): 409-417.

## STABILITY DATA



\*label claim in prototype  
Study currently ongoing to 24mo





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# Thank You!

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## SYNBIOTICS Colostrum + Probiotic Combinations

*Mechanism of Action*

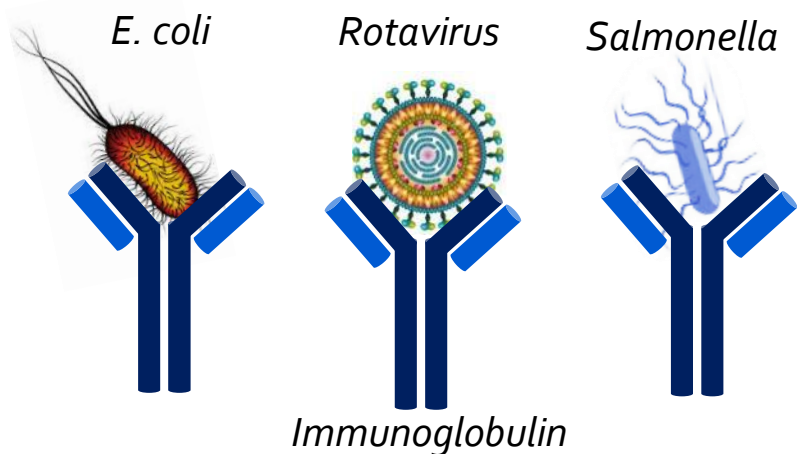
CONFIDENTIAL



# Colostrum Immunoglobulins Improve Intestine Environment

## Colostrum Immunoglobulins

Can bind to pathogens in the intestine



Reducing likelihood of infection



Allowing probiotics to have more resources (food)

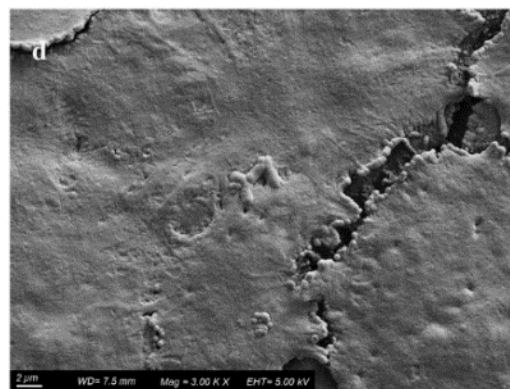


Helping to establish a good balance of bacteria

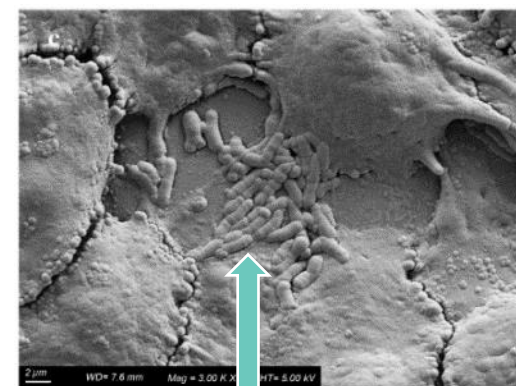
## Colostrum Immunoglobulins

Can help probiotics adhere to the intestinal wall

Control



+ Immunoglobulin



Probiotic attached  
to intestinal cells



They likely support more successful  
colonization of probiotics





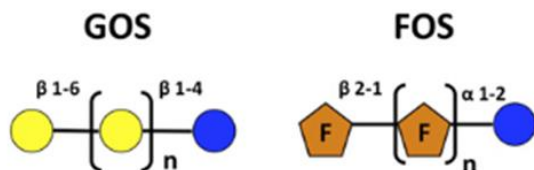
# Colostrum Oligosaccharides Can Act as Prebiotics

## Traditional Prebiotics

Simple structure, have health benefits, but can have side effects (discomfort)

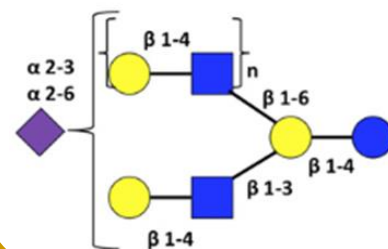
### Traditional Prebiotics

Galacto- and Fructo-oligosaccharides



### CCO

Cow Colostrum Oligosaccharides

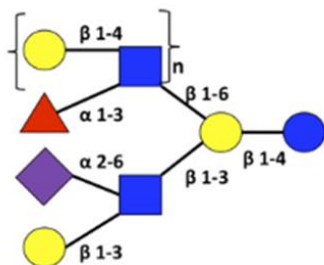


### Cow Colostrum Oligosaccharides

Complex oligosaccharides that have similarities to Human Milk Oligosaccharides (HMO)

### HMO

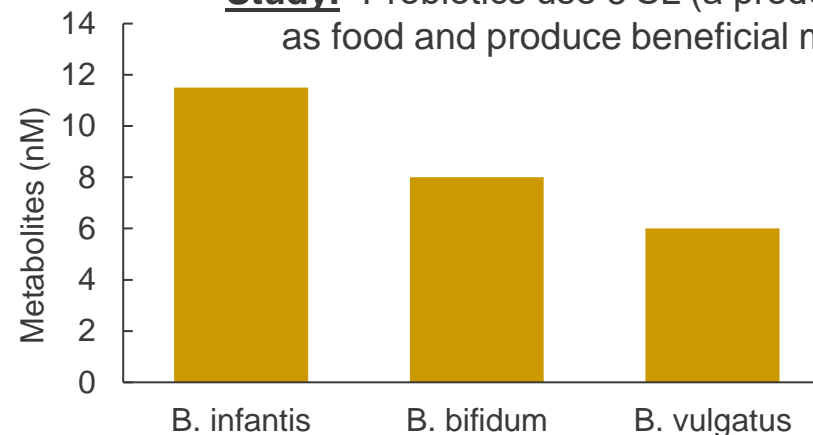
Human Milk Oligosaccharides



### Human Milk Oligosaccharides

Complex structures that feed beneficial microbes in the infant gut (like *Bifidobacterium infantis*)

**Study:** Probiotics use 3'SL (a predominant CCO) as food and produce beneficial metabolites



Moon, J. S., et al. J. Func. Foods 21 (2016): 497-506



# Colostrum Can Support Probiotics

**Immunoglobulins  
Growth Factors**



Help create ideal  
intestinal environment

**Oligosaccharides  
Glycoproteins**

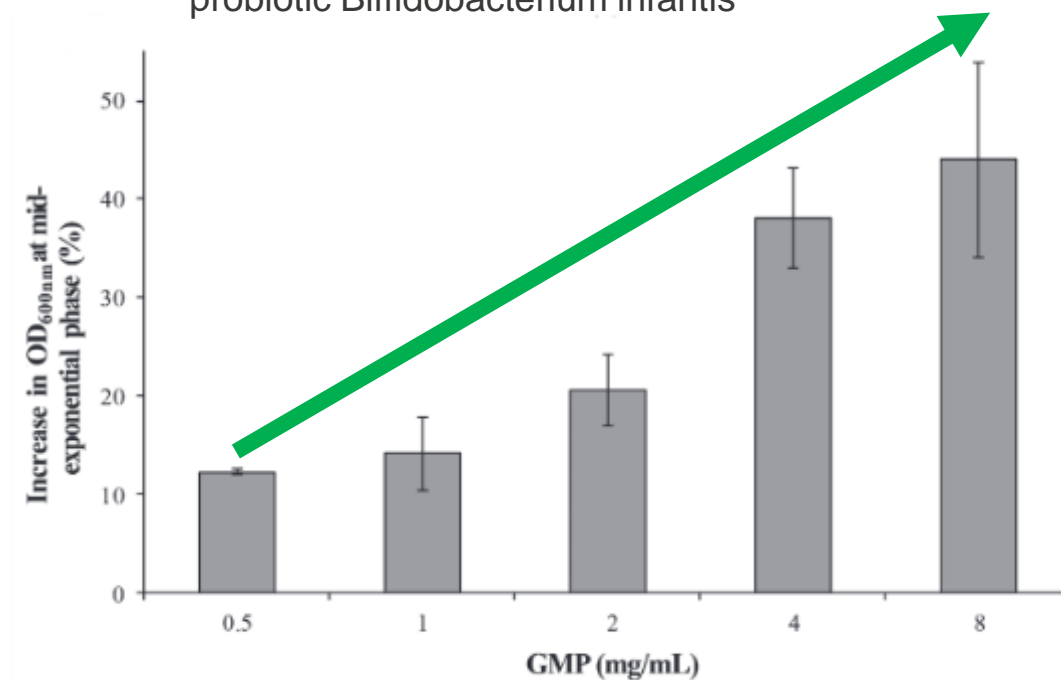


Help to feed and  
promote probiotic growth

**Study:** Colostrum from dairy cows increases the growth of many different types of probiotic strains

Strain	Col OD <sub>max</sub> <sup>†</sup>
<i>Pediococcus acidilactici</i> RBL39	↑
<i>Pediococcus acidilactici</i> R1001	↑
<i>Lactobacillus lactis</i> RBL22	↑
<i>Lactobacillus helveticus</i> R0052	↑
<i>Lactobacillus helveticus</i> R0389	↑
<i>Bacillus subtilis</i> R0179	NE
<i>Enterococcus faecium</i> R0026	↑
<i>Lactobacillus rhamnosus</i> R0011	↑
<i>Lactobacillus rhamnosus</i> GG	↑
<i>Lactobacillus rhamnosus</i> RW-9595M	↑
<i>Bifidobacterium lactis</i> BB12	↑
<i>Bifidobacterium longum</i> R0175	↑

**Study:** Colostrum glycoprotein (GMP) promotes the growth of probiotic *Bifidobacterium infantis*



Champagne, C. P., et al. *Can. J. Microbiol.* 60.5 (2014): 287-295.

O'Riordan, Noelle, et al. *Journal of dairy science* 101.8 (2018): 6730-6741.



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