

PROBIO PCC™

LIVE PROBIOTICS



POSITIONING STATEMENT

Pharmanex ProBio PCC contains a potent probiotic bacteria culture of *Lactobacillus fermentum*.

CONCEPT

The digestive system is your body's first line of defense against unwanted organisms consumed with food. An important component of your digestive defense system is friendly bacteria that aid digestion and enhance your body's own digestive immune response. As we encounter challenges to our digestive system we can severely disturb the delicate balance of our body's intestinal flora, which can cause occasional gastrointestinal (GI) discomfort. Fortunately, a healthy balance of intestinal flora can be supported through the consumption of food or food supplement products that contain friendly live bacteria cultures commonly referred to as probiotics.*

Pharmanex's unique strain of *Lactobacillus* has shown an extraordinary resilience to the growth of undesirable organisms in the gastrointestinal tract. Clinical research shows an increase in the growth of beneficial bacteria in the digestive tract after the introduction of this particular bacteria strain. Its ability to survive passage through the harsh environment of the stomach, its ability to colonize and act as a "friendly tenant," and its resilient and stable nature make ProBio PCC superior to many other probiotic products.*

PRIMARY BENEFITS

- Clinically proven to encourage the proliferation of healthy "live" probiotic bacteria in the lower digestive tract, acting as a resilient and stable territorial colonizer*
- Supports a protective immune response*

WHAT MAKES THIS PRODUCT UNIQUE?

- Pharmanex uses a robust strain of *Lactobacillus fermentum* proven to survive gastric acid and effectively colonize in the gut
- ProBio PCC is developed to ensure the product meets label claims for live cultures (CFUs) at the end of shelf life

WHO SHOULD USE THIS PRODUCT?

ProBio PCC is intended for individuals who experience occasional gastrointestinal discomfort. Individuals who travel frequently should benefit from this product.

DID YOU KNOW?

- There are 400 million different bacterial species in our bodies.
- 70% of the human immune system is localized in the digestive tract.
- 20 to 50% of travelers (approximately 10 million) develop gastrointestinal discomfort each year.
- Humans have about ten times more bacteria than cells.
- Because a large percentage of the human immune system is localized in the digestive tract, providing the body with the right kind of friendly bacteria does indeed play an important role in immune health.

FREQUENTLY ASKED QUESTIONS

What is ProBio PCC?

ProBio PCC is a probiotic dietary supplement that provides two billion CFUs (colony forming units) of a unique strain of *Lactobacillus*.

What ingredients does ProBio PCC contain?

ProBio PCC provides a unique strain of friendly bacteria (*Lactobacillus fermentum* PCC) shown to be resistant to an acidic environment and can effectively colonize in the lower digestive tract. Each ProBio PCC capsule is guaranteed to contain a minimum of two billion CFUs (colony forming units) of the strain *L. fermentum* PCC at the end of shelf life.

PROBIO PCC™

Are there scientific studies validating ProBio PCC?

The primary goal of probiotic therapy is to help establish the natural balance of intestinal microflora in order to have an optimally functioning digestive defense system; this effect is well established in independently published research. The health benefits of *L. fermentum* PCC are supported by 12 clinical studies and 16 animal and in vitro studies.

How does ProBio PCC work?

ProBio PCC has been clinically proven to encourage the proliferation of healthy probiotic bacteria in the lower digestive tract, thus helping to fortify the natural digestive defense system. By actively colonizing the lower digestive tract, ProBio PCC may be able to discourage the development of undesirable microorganisms.*

Why is ProBio PCC unique?

ProBio PCC has been developed through scientific and analytical methods to ensure the product meets label claims for live cultures (CFUs) at the end of shelf life, a more valid indicator of efficacy than claiming number of live cultures at manufacturing. Pharmanex's unique strain of *Lactobacillus* was isolated from a Swedish woman who showed an extraordinary resilience to undesirable organisms. This unique strain of *Lactobacillus* called *Lactobacillus fermentum* has the ability to survive passage through the harsh environment of the stomach and has the ability to colonize in the intestine. In developing ProBio PCC, Pharmanex® has followed the probiotic guidelines as established by the FAO/WHO expert consultation for pH survival, colonization, identity, and dosing.

Is ProBio PCC safe?

ProBio PCC is safe and well tolerated at the recommended dosage. *Lactobacilli* have a long history of use as probiotics without established risk to humans, which remains the best proof of safety. If you are pregnant or lactating, or taking a prescription medication, consult a physician prior to use. There are no known side effects at the recommended dosage.

KEY SCIENTIFIC STUDIES

1. Charteris WP, Kelly PM, Morelli L, Collins JK. Development and application of an in vitro methodology to determine the transit tolerance of potentially probiotic *Lactobacillus* and *Bifidobacterium* species in the upper human gastrointestinal tract. *J Appl Microbiol*, 1998 May; 84(5):759-68.
2. Plant L, Conway PL. Association of *Lactobacillus* spp with Peyer's Patches in mice. *Clinical and Diagnostic Immunology*, 2002; 8(2): 320-324.

3. Plant L, C Lam, PL Conway, and K O'Riordan. Gastrointestinal microbial community shifts observed following oral administration of a *Lactobacillus fermentum* strain to mice. *FEMS Microbiology Ecology*, 2003; 43:133-140.
4. Conway PL. Effects of oral administration of the probiotic *Lactobacillus fermentum* Vri-002 on the immune system of endurance athletes. Presented at the Australian Conference of Science and Medicine in Sport, October 7-9, 2004.
5. Joint FAO/WHO Expert consultation on evaluation of health and nutritional properties of probiotics in food including powder milk with live lactic acid bacteria. Córdoba, Argentina. October 1-4, 2001.
6. Marteau PR, et al. Protection from gastrointestinal disease with the use of probiotics. *Am J Clin Nutr*, 2001; 73(suppl): 430S-6S.
7. Isolauri E, et al. Probiotics: effects on immunity. *Am J Clin Nutr*, 2001; 73 (Suppl):444S-505.
8. Cox AJ, Pyne DB, Saunders PU, Fricker PA. Oral administration of the probiotic *Lactobacillus fermentum* VRI-003 and mucosal immunity in endurance athletes. *Br J Sports Med*. 2010 Mar;44(4):222-6.

Supplement Facts

Serving Size: One Capsule

Amount Per Serving	% Daily Value
<i>PCC Lactobacillus fermentum</i>	2 Billion CFU**

**Daily Values not established.

OTHER INGREDIENTS: Microcrystalline Cellulose, Hypromellose, Stearic Acid, Silicon Dioxide.

SUGGESTED STORAGE: Store in a cool, dry place. Refrigerate after opening.

WARNING: Keep out of reach of children. Consult a physician prior to use if pregnant or lactating, or using prescription medication. Discontinue 2 weeks prior to and after surgery. Discontinue use and consult a physician if any adverse reactions occur. Do not use if safety seal is broken or missing.

DIRECTIONS FOR USE

As a dietary supplement, take one (1) capsule daily with food. Use continuously for optimal results*.

WARNINGS

Keep out of reach of children. Consult a physician prior to use if pregnant or lactating, or using prescription medication. Discontinue use of this product 2 weeks prior to and after surgery. Discontinue use and consult a physician if any adverse reactions occur.

*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.

