

# LIFECORE™ CHOCOLATE



## CLINICAL APPLICATIONS

- Supports Healthy Body Weight and Metabolism
- Promotes a Feeling of Fullness and Reduces Cravings
- Provides a Diverse Blend of Clean, Plant-Based Nutrition
- Promotes Healthy GI and Immune Function

## ESSENTIAL NUTRITION

LifeCORE is a balanced nutritional shake, free from classic allergens, such as gluten, soy and dairy, and does not contain fructose or any genetically modified foods. It provides a diverse blend of pure plant proteins combined with other essential nutrients and fiber to support workout recovery or simply fulfill the needs of individuals seeking to get more protein in their diet.

Just one serving of LifeCORE provides 20 g of high-quality protein, sourced from organic brown rice and legumes (peas). The unique complex of vegetable-based protein has a well-balanced amino acid profile, medium chain triglycerides and organic flax.

LifeCORE suits all lifestyles and weight management goals, delivering the preferred ratio of protein, carbohydrates and fat necessary for a balanced diet in two delicious flavors: rich dark chocolate or creamy vanilla. LifeCORE is specially formulated to maintain glycemic balance and makes a great complement to individual dietary needs.

### Overview

LifeCORE is a simple, added nutrition source that includes an ideal balance of organic brown rice and pea protein. These proteins have been shown to support satiety naturally by increasing cholecystikinin (CCK) and glucagon-like peptide-1 (GLP-1). CCK and GLP-1 are well-known satiety hormones that aid the body in decreasing food intake and increase signals of stomach fullness to the brain. These proteins promote post-meal satisfaction and help maintain healthy blood sugar levels after eating.<sup>[1-3]</sup>

Carbohydrates are the body's preferred fuel source, making this macronutrient essential to a well-balanced diet. However, the type, quantity and metabolic impact of carbohydrate intake is imperative to achieving balance and reaching wellness goals. LifeCORE provides low-impact carbohydrates balanced with fiber, protein and healthy fats to fuel the body and maintain optimal health.

### Nutrients

#### Pea Protein<sup>†</sup>

Pea protein was chosen to comprise the plant protein sources of LifeCORE because it showed the strongest effects on CCK release compared to other dietary proteins, in an intestinal cell model.<sup>[1]</sup> In healthy subjects, pea and wheat protein were the most potent stimulators of CCK and GLP-1 release in human duodenal tissue. Since many individuals are wheat sensitive, pea protein is the low-allergen protein of choice to aid in weight management.<sup>[2]</sup> Further studies on the effect of pea protein on satiety hormone release showed an increase in the level of CCK, comparable to the effect of whey protein.<sup>[4]</sup>

#### Rice Protein<sup>†</sup>

Rice protein is a valuable source of branched chain amino acids: leucine, isoleucine and valine. These amino acids reduce the breakdown of protein and stimulate protein synthesis. In animal studies, rice protein was shown to support strong heart function, healthy cholesterol levels and insulin sensitivity, reducing the negative impact of the Western diet fed to these animals.<sup>[6-8]</sup>

#### Taurine<sup>†</sup>

Taurine is a key ingredient in LifeCORE as it enhances function at a cellular level and although it is produced in the body,

† 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.

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consumption is essential to maintaining adequate levels. Taurine is a sulfur –containing amino acid that is not incorporated into proteins. It is found in very high concentrations in the heart and retina of the eyes where it serves as a potent antioxidant to protect these delicate tissues.<sup>[9]</sup> In human and animal studies, taurine supplementation is shown to support healthy blood pressure levels and positive physiological functioning of the heart.<sup>[10-13]</sup>

### Organic Flax Seed Flour†

Alpha-linolenic acid (ALA) is an omega-3 fatty acid found in flax seeds shown to support healthy heart function.<sup>[14-15]</sup> Flax seeds are also a source of fiber and lignans. Lignans support safe estrogen metabolism in both men and women.<sup>[16]</sup>

### Larch Arabinogalactin (Fiber Aid) †

Larch arabinogalactan is a source of dietary fiber, and has been approved as such by the FDA. This fiber aid was selected as an ingredient in LifeCORE due to its immune-enhancing properties that suggest an array of clinical uses, both in promoting GI health, as well as its ability to support a more responsive immune system. Arabinogalactan has been shown to prime the immune system, increase natural killer cell activity and support the body during immune challenges.<sup>[25]</sup>

### Directions

Mix 1-2 scoops of this product with 8 oz water or the beverage of your choice, once daily or as recommended by your health care professional.

### Does Not Contain

Gluten, yeast, artificial colors and flavors.

### Cautions

If you are pregnant or nursing, consult your physician before taking this product.

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<b>Supplement Facts</b>		
Serving Size 2 Scoops (52.3 Grams)		
Servings Per Container 14		
2 scoops contain	Amount Per Serving	% Daily Value
Calories	200	
Calories from Fat	30	
Total Fat	3.5 g	5%*
Saturated Fat	1.5 g	8%*
Total Carbohydrate	25 g	8%*
Dietary Fiber	4 g	16%*
Sugars	12 g	**
Protein	19 g	38%*
Calcium	35 mg	4%
Iron	6 mg	33%
Sodium	330 mg	14%*
<b>Proprietary Blend</b>	<b>21.6 g</b>	
Nutralys® Pea Protein Concentrate		**
ORYZAPRO Rice Protein		**
Organic Flaxseed Flour	2 g	**
Medium Chain Triglycerides	800 mg	**
Alpha Linolenic Acid (from Organic Flaxseed Flour)	400 mg	**

\* Percent Daily Values are based on a 2,000 calorie diet.  
\*\* Daily Value not established

### LifeCORE Chocolate

ID# 927001 732.2 Grams (25.8 oz)

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## References

1. Geraedts MC, Troost FJ, Fischer MA, Edens L, Saris WH. Direct induction of CCK and GLP-1 release from murine endocrine cells by intact dietary proteins. *Mol Nutr Food Res*. Mar 2011; 55(3):476-484.
2. Geraedts MC, Troost FJ, Tinnemans R, Soderholm JD, Brummer RJ, Saris WH. Release of satiety hormones in response to specific dietary proteins is different between human and murine small intestinal mucosa. *Ann Nutr Metab*. 2010; 56(4):308-313.
3. Deremaux L, Wils D. Nutraly's Pea Protein on Satiety Hormone Release in Rats. *Nutritional Study Abstract*. 2010; 6(18).
4. Rigamonti E, Parolini C, Marchesi M, et al. Hypolipidemic effect of dietary pea proteins: Impact on genes regulating hepatic lipid metabolism. *Mol Nutr Food Res*. May 2010; 54 Suppl 1:S24-30.
5. Spielmann J, Stangl GI, Eder K. Dietary pea protein stimulates bile acid excretion and lowers hepatic cholesterol concentration in rats. *J Anim Physiol Anim Nutr (Berl)*. Dec 2008; 92(6):683-693.
6. Ni W, Tsuda Y, Takashima S, Sato H, Sato M, Imaizumi K. Anti-atherogenic effect of soya and rice-protein isolate, compared with casein, in apolipoprotein E-deficient mice. *Br J Nutr*. Jul 2003; 90(1):13-20.
7. Ronis MJ, Chen Y, Bradeaux J, Shankar K, Badger TM. Diets containing soy or rice protein isolate (SPI, RPI) increase insulin sensitivity and improve lipid homeostasis in weanling rats fed high fat, high cholesterol Western diets as a result of activation of PPAR and LXR-mediated pathways *The FASEB Journal*. 2008; 22:892.892.
8. Ronis MJ, Badeaux J, Chen Y, Badger TM. Rice protein isolate improves lipid and glucose homeostasis in rats fed high fat/high cholesterol diets. *Exp Biol Med (Maywood)*. Sep 2010; 235(9):1102-1113.
9. Taurine - monograph. *Altern Med Rev*. Feb 2001; 6(1):78-82.
10. Militante JD, Lombardini JB. Treatment of hypertension with oral taurine: experimental and clinical studies. *Amino Acids*. 2002; 23(4):381-393.
11. Ahn CS. Effect of taurine supplementation on plasma homocysteine levels of the middle-aged Korean women. *Adv Exp Med Biol*. 2009; 643:415-422.
12. Xu YJ, Arneja AS, Tappia PS, Dhalla NS. The potential health benefits of taurine in cardiovascular disease. *Exp Clin Cardiol*. Summer 2008; 13(2):57-65.
13. Schaffer SW, Jong CJ, Ramila KC, Azuma J. Physiological roles of taurine in heart and muscle. *J Biomed Sci*. 2010; 17 Suppl 1:S2.
14. de Lorgeril M, Renaud S, Mamelle N, et al. Mediterranean alpha-linolenic acid-rich diet in secondary prevention of coronary heart disease. *Lancet*. Jun 11 1994; 343(8911):1454-1459.
15. Brouwer IA, Katan MB, Zock PL. Dietary alpha-linolenic acid is associated with reduced risk of fatal coronary heart disease, but increased prostate cancer risk: a meta-analysis. *J Nutr*. Apr 2004; 134(4):919-922.
16. Brooks JD, Thompson LU. Mammalian lignans and genistein decrease the activities of aromatase and 17 beta-hydroxysteroid dehydrogenase in MCF-7 cells. *J Steroid Biochem Mol Biol*. 2005;94(5):461-467.
17. Kelly GS. Larch arabinogalactan: clinical relevance of a novel immune-enhancing polysaccharide. *Altern Med Rev*. 1999; 4(2):96-103.
18. Udani JK, Singh BB, Barrett ML, Singh VJ. Proprietary arabinogalactan extract increases antibody response to the pneumonia vaccine: a randomized, double-blind, placebo-controlled, pilot study in healthy volunteers. *Nutr J*. 2010; 9:32.