

# PUREPALEO™ PROTEIN

BONE BROTH PROTEIN

NATURAL CHOCOLATE FLAVOUR | 810 G (1.8 LBS) POWDER | NPN80056141 | PPPCHC-CN NATURAL VANILLA FLAVOUR | 810 G (1.8 LBS) POWDER | NPN80056141 | PPPVAN-CN UNFLAVOURED | 810 G (1.8 LBS) POWDER | NPN80056141 | PPPUNF-CN

THIS INFORMATION IS PROVIDED AS A MEDICAL AND SCIENTIFIC EDUCATIONAL RESOURCE FOR THE USE OF PHYSICIANS AND OTHER LICENSED HEALTH CARE PRACTITIONERS ("PRACTITIONERS"). PRODUCT INDICATIONS WITHIN THIS RESOURCE MAY BE DIFFERENT THAN WHAT IS LISTED ON THE LABEL AS PER HEALTH CANADA'S SELF-CARE NATURAL HEALTH PRODUCT REGULATIONS. THIS INFORMATION IS INTENDED FOR PRACTITIONERS TO USE AS A BASIS FOR DETERMINING WHETHER TO RECOMMEND THESE PRODUCTS TO THEIR PATIENTS. ALL RECOMMENDATIONS REGARDING PROTOCOLS, DOSING, PRESCRIBING AND/OR USAGE INSTRUCTIONS SHOULD BE TAILORED TO THE INDIVIDUAL NEEDS OF THE PATIENT CONSIDERING THEIR MEDICAL HISTORY AND CONCOMITANT THERAPIES. THIS INFORMATION IS NOT INTENDED FOR USE BY CONSUMERS.

**PurePaleo™ Protein** is a protein powder featuring HydroBEEF™, a highly concentrated bone broth protein delivering 26 g of protein per serving of the unflavoured option or 21 g of protein per serving of the vanilla-or chocolate-flavoured options. HydroBEEF™ is sourced from cattle raised in Sweden without hormones and free of any genetically modified grains, grasses, and hay. It undergoes an exclusive process that includes protein hydrolyzation into a high concentration of functional peptides allowing for faster absorption and assimilation. HydroBEEF™ is >97% protein with a high protein nitrogen score of 101.5, indicating high protein usability. HydroBEEF™ may contain an average of 73% to 80% hydrolyzed collagen, with the remaining percentage represented by the meat of hydrolyzed beef.

Beef protein is a complete protein containing all the essential amino acids and collagen precursors. Adequate protein consumption provides the amino acids required for protein synthesis in the body. Protein serves as the main structural component of muscles, bones, and connective tissue, and it plays a direct role in building hormones, neurotransmitters, and enzymes. Protein supplementation may support healthy body composition, musculoskeletal health, and exercise performance.

HydroBEEF™ is the ultimate protein supplement for those on a Paleo diet or anyone who wants the unique protein profile that comes only from beef. PurePaleo™ Protein is available in unflavoured and unsweetened forms or in vanilla and chocolate flavours sweetened with stevia. PurePaleo™ Protein may support joint and connective tissue integrity. This product may also help support healthy muscle tissue composition.

# **INGREDIENT HIGHLIGHTS**

- Delivers 26 grams of protein per serving for the unflavoured and unsweetened option and 21 grams of protein per serving for the chocolate- or vanilla-flavoured options
- Sourced from HydroBEEF™, a highly concentrated beef protein from hormone-free, grass fed, non-GMO Swedish cows
- Hydrolyzed to enhance assimilation for high protein usability
- · Easy-to-mix powder available in three flavours: vanilla, chocolate, and unflavoured
- Vanilla and chocolate flavours are naturally sweetened with stevia leaf extract
- · Gluten-free, dairy-free, and soy-free
- Non-GMO
- Paleo-friendly

HydroBEEF™ protein is a highly concentrated beef protein sourced from animals raised in Sweden without hormones that were fed a diet entirely free of GMO grains, grasses, hay, and ensilage. It has a high protein nitrogen score, which correlates to enhanced digestion and bioavailability. Beef protein is a complete protein containing all the essential amino acids.¹ Adequate protein consumption provides the amino acids, including the essential amino acids, required for protein synthesis in the body to serve as the main structural component of muscles, bones, hair, skin, nails, tendons, ligaments, and blood vessels, in addition to building hormones, neurotransmitters, and enzymes.²

Intake of collagen precursors may support collagen synthesis and thereby support skin, joints, ligaments, and connective tissue.<sup>3</sup> Beef also provides good concentrations of the amino acids leucine, lysine, and methionine,<sup>1</sup> and a higher content of the amino acids required to synthesize collagen, proline, and glycine. Leucine plays an important role in muscle synthesis.<sup>4</sup> A metabolite of leucine, beta-hydroxy-beta-methylbutyrate (HMB), may also support muscle health.<sup>4</sup> The proposed mechanisms of action of HMB involve attenuation of protein degradation, its influence on the mammalian target of rapamycin (mTOR)/p70S6K pathway, which is involved in the initiation and translation of muscle protein synthesis.<sup>4</sup>

HMB also may reduce apoptosis by modulating the mitogen-activated protein kinase (MAPK)/extracellular signal-related kinase (ERK) and the phosphatidylinositol 3-kinase (PI3K)/protein kinase B (AKT) pathways.4 HMB is metabolized to beta-hydroxy beta methylglutaryl coenzyme A (HMG-CoA) and may support cellular health and muscle cell stability.4

Collagen protein displays a low essential amino acid profile, yet as a functional food, collagen is a source of physiologically active peptides and conditionally indispensable amino acids that have the potential to optimize health and address physiological needs posed by aging and exercise.<sup>5</sup> A publication estimated that as much as 36% of total protein intake may be derived from collagen protein in the daily diet. This allows for the essential amino acid requirements to still be met due to the typical mix of proteins provided by the average diet in the U.S.<sup>5</sup>

Protein supplementation (including that sourced from beef) has been found to promote body composition and exercise performance, likely due to supporting lean body mass, muscle anabolism, hypertrophy, and strength, especially when combined with resistance training. 6-10 A systematic review and meta-analysis found that beef protein supplements resulted in significantly increased total daily protein intake, lean body mass, and lower-limb muscle strength compared to no protein supplementation.<sup>6</sup> According to studies, beef protein supplementation may also mitigate some of the immune responses that occur after exercise, support iron status, and help preserve muscle mass.<sup>8,11</sup>

A double-blind, randomized controlled trial was conducted to explore the efficacy of isolated beef protein supplementation as compared to chicken, whey, and placebo. The study included 41 adults aged 18 to 30 years with weight training experience. The 8-week study involved a protocol of resistance training with a 46 g serving of protein post-workout. Study results indicate that protein supplementation helped improve parameters related to power output and body composition as compared to the controls. No significant differences were reported among protein sources.

In addition to supporting athletes, consuming supplemental protein may also support maintaining lean body mass in the aging population who may have or who are at risk of sarcopenia. Up to 46% of the elderly population do not meet daily protein intake requirements.<sup>12</sup> In a Norwegian study consisting of 417 elderly patients, it was found that self-reported dietary protein intake and postprandial serum plasma concentrations of leucine were lower in individuals with sarcopenia.<sup>12</sup>

Supplemental protein may also support other populations at risk of muscle atrophy due to disorders, such as cancer, acquired immune deficiency syndrome (AIDS), malnutrition, chronic heart failure, and diabetes, in addition to conditions leading to disuse, such as injury, denervation, and immobilization.<sup>13-15</sup>

# **BENEFITS**

- Supports healthy body composition
- Promotes joint and connective tissue health
- Supports healthy muscle composition

## NATURAL CHOCOLATE FLAVOUR

## Medicinal Ingredients (per scoop/27 g):

Non-Medicinal Ingredients: Cocoa powder, natural chocolate flavour, natural vanilla flavour, medium chain triglycerides, stevia leaf, silicon dioxide. Recommended Dose: Adults: Mix 1 scoop (27 g) well in 1-2 cups of liquid immediately before consumption, or as directed by your health care practitioner.

# **NATURAL VANILLA FLAVOUR**

#### Medicinal Ingredients (per scoop/27 g):

Non-Medicinal Ingredients: Natural vanilla flavour, medium chain triglycerides, tapioca dextrin, natural caramel flavour, certified organic stevia leaf extract powder, silicon dioxide. **Recommended Dose:** Adults: Mix 1 scoop (27 g) well in 1-2 cups of liquid immediately before consumption, or as directed by your health care practitioner.

#### **UNFLAVOURED**

# Medicinal Ingredients (per scoop/27 g):

Recommended Dose: Adults: Mix 1 scoop (27 g) well in 1-2 cups of liquid immediately before consumption, or as directed by your health care practitioner.

Refer to the product label for dosing instructions, age-appropriateness, and relative risk statements. Healthcare practitioners are encouraged to use clinical judgement with case-specific dosing based on intended goals, subject body weight, medical history, and concomitant medication and supplement usage.