

## Ginseng Enzyme (Fermented Ginseng)

Cat. No. CEFX-455

Lot. No. (See product label)

### Introduction

#### Description

Fermented ginseng is an innovative advancement in ginseng processing, designed to enhance bioavailability and efficacy. Using dual microbial fermentation with yeast and lactic acid bacteria, this process breaks down ginsenosides and enhances the production of rare ginsenosides, which are more readily absorbed and utilized by the body.

#### Applications

Dietary Supplements – Capsules, powders, and tablets for energy, immunity, and anti-aging. Functional Beverages – Used in energy drinks, herbal tonics, and sports recovery drinks. Cosmeceuticals & Beauty Products – Skin-nourishing and anti-aging formulations. Medical & Pharmaceutical – Supports cognitive health, immune function, and fatigue recovery. Scientific Validation Antioxidant Power – Fermented ginseng has been proven to exhibit strong free radical scavenging activity. Anti-Fatigue & Energy Boosting – Clinical studies indicate it reduces muscle fatigue, enhances endurance, and improves post-exercise recovery. Anti-Aging & Longevity – Shown to extend lifespan in model organisms by reducing oxidative stress and promoting cellular resilience. Fermented ginseng represents the next generation of ginseng supplementation, offering superior potency, bioavailability, and health benefits.

#### Synonyms

Ginseng; Ginseng Extract

### Product Information

#### Appearance

Light yellow to dark yellow

#### Purity

5% Total Saponin; 1.2% Rare Saponins

#### Function

Higher Ginsenoside Content & Enhanced Bioavailability Fermented ginseng

## Function

**Higher Ginsenoside Content & Enhanced Bioavailability** Fermented ginseng contains a higher total ginsenoside content due to the consumption of primary metabolites, leading to the release of active ginsenosides. Compared to ginseng powder, fermented ginseng has a wider variety of rare ginsenosides, which are more easily absorbed by the body. The fingerprint analysis of saponins indicates more rare ginsenoside peaks and larger peak areas in fermented ginseng compared to red ginseng. **Optimized Polysaccharide Composition** Ginseng naturally contains large-molecular-weight soluble polysaccharides. High-temperature processing in red ginseng reduces polysaccharide molecular weight, whereas fermented ginseng maintains an intermediate molecular weight distribution, ensuring better bioavailability. **Enriched Protein & Peptide Profile** Fermented ginseng introduces microbial proteins from the fermentation process, resulting in higher overall protein content. Unlike raw ginseng, which has more large-molecule proteins, both red ginseng and fermented ginseng contain smaller peptides and free amino acids, making nutrients more digestible. **Enhanced Amino Acid Composition** Higher levels of free amino acids compared to red ginseng, particularly phosphoserine, arginine, and glutamic acid. Significant increase in  $\gamma$ -aminobutyric acid (GABA), which plays a role in stress reduction and neurological health. Higher levels of hydrolyzed amino acids, including arginine, glutamic acid, and aspartic acid, which are essential for energy metabolism and immune function. **Increased Organic Acid Content & Gut Health Benefits** Fermentation enhances organic acid production, increasing short-chain fatty acids (SCFAs) that support gut microbiome regulation. Conversion of malic acid into lactic acid improves digestive health and metabolic efficiency. Higher propionic acid content, known for its potential role in gut microbiota modulation.

## Usage and Packaging

**Package** 500g×20bag/Carton

## Storage and Shipping Information

**Storage** Store in cool and dry area impervious to light. Avoid storing with toxic and hazardous material. The shelf life should not be less than 24 months with an unbroken seal, storing under described condition.