
# MicroVita® Mood

## MicroVita® Mood Supports:

- Mood and attention
- Proper serotonin regulation
- Healthy gut function

### 25 Billion Live Cultures
### Clinically Proven Strains


**MicroVita® Mood is a probiotic/prebiotic specifically formulated to support mood and proper serotonin regulation.** It provides 6 probiotic strains, each with clinical support for maintaining proper dopamine and serotonin regulation as well as absorption of essential nutrients.

## MicroVita® Kit

MicroVita® Mood is part of the MicroVita® Kit that also contains MicroVita® Focus. MicroVita® Mood contains six probiotic strains with clinical support for improving serotonin regulation, and MicroVita® Focus contains six probiotic strains with clinical support for improving dopamine regulation. Each contains three prebiotics that provide their specific probiotics with energy. Together MicroVita® Kit helps individuals heal the gut and brain without hurting.

## Gut-Brain Axis

It is well established that the gut microbiome, the entire genome of the gut microbiota, influences host development and physiology, playing a key role in the balance between health and disease. In recent years, emerging evidence has suggested a role of the gut microbiota in brain function and behavior.[1]

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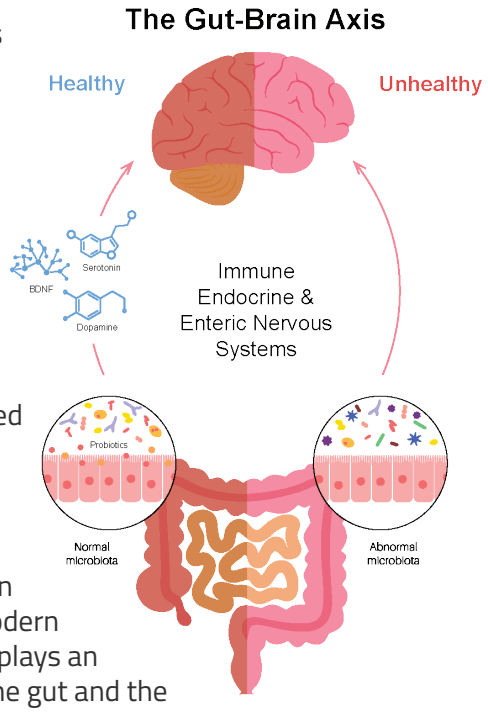
*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

# MicroVita
MOOD




The human being is a superorganism. When we take the human self and its partner microbiota into consideration at the same time, we can better understand human health.[2] Microorganisms amounting to more than 1 kg inhabit the digestive tract and are considered the most important microorganisms in the human body. Collectively, they're called the gut microbiota. The microbiota contains 300–3,000 different species, whose total number exceeds 1,014 billion cells, which is almost 10 times the total number of human cells.

Since 2008, Nature has advocated calling the human being "we" rather than "I" because more than 90% of the total cells and genes of the superorganism are microorganisms. These microorganisms have established interdependent and mutualistic relationships with humans over the long process of evolution; therefore, they are called commensal microbiota.[2]

Over the last few centuries, the partner microbiota has experienced tremendous change, much more than human genes, because of the modern transformations in diet, lifestyle, medical care, and so on, parallel to the modern epidemiological transition.[2] Existing research indicates that gut microbiota plays an important role in this transition.[2] A bidirectional communication between the gut and the brain (gut–brain axis) is well recognized with the gut microbiota viewed as a key regulator of this cross-talk.[1]

The gut microbiota almost develops synchronously with the gut and communicates through the gut-brain axis. The gut microbiota influences various normal mental processes and phenomena and is involved with mental and neurological health, so by targeting the microbiota, we can support mental health.[2] Recent studies have suggested that probiotics use the gut–brain axis to increase the levels of neural monoamines, such as dopamine, serotonin (5-HT), and brain-derived neurotropic factor (BDNF), which are critical for neuronal plasticity and survival.[3,4]

## Psychobiotics

Psychobiotics are a group of probiotics that when ingested in appropriate quantities, yield positive psychiatric effects in psychopathology.[5] These psychobiotics affect the central nervous system (CNS) related functions and behaviors mediated by the gut-brain-axis (GBA) via immune, humoral, neural, and metabolic pathways to improve not only the gastrointestinal (GI) function but also the antidepressant and anxiolytic capacity.[6]

Psychobiotics have been shown to improve neurodegenerative and neurodevelopmental disorders, including autism spectrum disorder (ASD), Parkinson's disease (PD) and Alzheimer's disease (AD). Use of psychobiotics can improve GI function, ASD symptoms, motor functions of patients with PD and cognition in patients with AD.[6] The bacteria most frequently exploited as probiotics are the Gram-positive Bifidobacterium and Lactobacillus families.[5]

## Prebiotics

Prebiotics are non-digestible carbohydrates that can be used as the prime source of energy for gut flora. Essentially, they are food for probiotics. Bacterial strains in the gut tend to feed on specific macronutrients, so providing the specific macronutrient that a specific bacterial strain "feeds on" encourages growth of desired bacterial strains in the host biome. Conversely, an unhealthy diet can "feed" bacterial strains that have negative health impacts. Prebiotics are known for their ability to grow beneficial bacteria for their host biome.

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## MicroVita® Mood Probiotic Strains

MicroVita® Mood is specifically formulated to provide probiotic strains that support proper serotonin regulation as well as absorption of essential nutrients. Each probiotic strain in MicroVita® Mood has clinical support validating its inclusion.

***Lactobacillus helveticus* (Rosell®-52) - 8 Billion CFU**

*Lactobacillus helveticus* has been shown to provide anxiolytic-like activity in and beneficial psychological effects in healthy human volunteers.[7] Taking *L. helveticus* for 30 days decreased the global scores of hospital anxiety and depression scale.[7] It has also been shown that supplementation over eight weeks of *L. helveticus* to subjects with Major Depression Disorder resulted in an improvement in Beck Depression Inventory scores compared with placebo.[8] Another study showed that individuals that supplemented Rosell®-52 (reclassified from *Lactobacillus acidophilus*) showed significant improvement in sleep quality, mood score, and the ability to feel pleasure.[9]

**Stress** **Anxiety** **Depression** **Mood**

***Bifidobacterium infantis* (Rosell®-33) - 2 Billion CFU**

Studies have shown an influential role for *B. infantis* in neural function relevant to depression.[10] Bifidobacteria treatment also resulted in attenuation of pro-inflammatory immune responses, and the elevation of the serotonergic precursor, tryptophan, providing evidence in support that this probiotic possesses antidepressant properties.[11] These findings point to a more influential role of intestinal microflora in the regulation of mood.[10]

**Depression** **Mood** **Serotonin Regulation**

***Lactobacillus plantarum* (K21™) - 5 Billion CFU**

*Lactobacillus plantarum* has been demonstrated that oral administration effectively alleviated allergic responses including: lowering cytokines, TNF-α, IL-6 and reducing airway restriction.[12] *L. plantarum* has been shown to be a promising candidate for protection from and prophylactic treatment of allergic diseases.[12]

**Inflammation** **Allergy**

***Lactobacillus paracasei* (PS23HI) - 3 Billion CFU**

*Lactobacillus paracasei* has been shown to be beneficial in mitigating age-related diseases, including cognitive impairment.[13] One study showed treatment with *L. paracasei* PS23 resulted in improved cognitive function, memory, and learning compared to the control group.[14] *L. paracasei* has also been shown to be a clinically effective, well-established, multifunctional probiotic that has a long history of human use in alleviating gastrointestinal, immunological, and infectious diseases.[15]

**Stress** **Anxiety** **Immunity**

***Lactobacillus paracasei* (Rosell®-215) - 9.5 Billion CFU**

Rosell®-215 (reclassified from *Lactobacillus casei*) has been shown to help alleviate symptoms and improve inflammatory cytokines.[16] *L. casei* has also be useful for: allergies, respiratory infection, oral health problems, Helicobacter pylori infection, which causes stomach ulcers, and rheumatoid arthritis (RA).

**Immunity** **Inflammation**

***Lactobacillus reuteri* (Rosell®-444) - 0.5 Billion CFU**

*Lactobacillus reuteri* has been demonstrated to promote health by reducing infections, improving feed tolerance, enhancing the absorption of nutrients, minerals, and vitamins, and modulating host immune responses. *L. reuteri* has been shown to be able to produce cobalamin (Vitamin B12), which is required for the function and development of the brain, nerves, and blood cells.[17]

**Immunity** **Inflammation** **Nutrient Absorption**

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## MicroVita® Mood Prebiotics

MicroVita® Mood provides a prebiotic blend of NeoGos™, Actazin®, and Chicory Root. Prebiotics are known for their ability to grow beneficial bacteria for their host biome. The most studied include galactooligasacharides. These short chain dietary fibers, which are undigestible in humans, nourish the intestinal lining and create a healthy gut flora.

**SUPPLEMENT FACTS**
Serving Size: 1 capsule — Servings Per Container: 30

| | Amount per serving | %DV |
|---|---|---|
| **Probiotic Blend** | 350 mg | † |
| *Lactobacillus plantarum* K21™ | | |
| *Lactobacillus paracasei* PS23™ (heat treated) | | |
| *Lactobacillus paracasei* Rosell®-215 | | |
| *Lactobacillus reuteri* Rosell®-444 | | |
| *Lactobacillus helveticus* Rosell®-52 | | |
| *Bifidobacterium infantis* Rosell®-33 | | |
| **Prebiotic Blend** | 75 mg | † |
| NeoGOS™ (Galactooligosaccharides) | | |
| Actazin® (Kiwi Fruit Powder) | | |
| Chicory Root Powder | | |

† Daily Value not established

Other Ingredients: Cellulose (Capsule), Microcrystalline Cellulose, Magnesium Stearate.


**NeoGOS™ (Galactooligasacharides) - 30 mg**
NeoGOS™ feeds the microbiome, producing short chain fatty acids, which has been shown to provide benefits to energy, immune regulation and metabolism. NeoGOS is a patented form of GOS that selectively stimulates the growth and activity of a limited number of beneficial bacteria in the colon, including the strains in MicroVita® Mood.

**Actazin® (Kiwi Fruit Powder) - 30 mg**
Actazin® is a powder from green kiwifruit, exclusively harvested in New Zealand. An in vitro model showed the prebiotic and anti-pathogenic activity of ACTAZIN® on two strains of beneficial bacteria: Bifidobacteria and Lactobacilli and on three strains of potentially pathogenic bacteria. Thus, ACTAZIN® promoted the growth of probiotic strains without increasing the growth of potentially pathogenic bacteria.

**Chicory Root Powder - 15 mg**
A substantial amount of clinical evidence depicts chicory to be anti-diabetic, immunomodulatory, anti-tumor, antioxidant, anthelmintic, and a prebiotic. In addition, chicory has been shown to promote good digestion, to regulate appetite, and to decrease the risk of gastrointestinal diseases.[18]

## MicroVita® Kit Use

The MicroVita® Kit contains a one month supply of MicroVita® Focus and a one month supply of MicroVita® Mood.

MicroVita® Kit is intended to be taken over a three month period
- In the first month, it is recommended to take one capsule of MicroVita® Focus per day.
- In the second month, it is recommended to take one capsule of MicroVita® Mood per day.
- In the third month, no probiotics are consumed, which allows the gut flora to come to equilibrium.

## Directions

**DOSAGE AND ADMINISTRATION:** The usual dose may be taken as one (1) capsule daily, or as directed under medical supervision.
**HOW SUPPLIED:** MicroVita® Mood is available in a bottle containing 30 white capsules.
**STORAGE:** Store in a dry place 68°F or below. **Best if refrigerated.** Protect from light and moisture.

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