

LACTOFERRIN

novel ingredient



Key Features:

- Easy-to-use odorless powder
- Purity up to 95 %
- High bioavailability
- Suitable for dry blending
- Neutral taste

Lactoferrin is a naturally occurring iron-binding protein found in milk that is known for its anti-microbial, anti-inflammatory and immunological properties.

Lactoferrin is an important component of the body's immune system, where it forms part of the innate defence and helps to modulate the immune system.

The powerful health benefits of lactoferrin have been the focus of extensive scientific research for over 50 years.

Lactoferrin derived from bovine milk has a very similar structure to the equivalent human protein.

Lactoferrin is approved by **US FDA** and **EFSA** as dietary supplement in food products.

Our ingredient is:

- **IFS Food Certified**
- **Halal and Kosher** certified

LACTOFERRIN: THE HIDDEN POWER OF MILK

Lactoferrin - ingredient for Food Supplements Application

Popular forms for Food Supplements applications:

chewable tablets/ capsules/ tablets/ sachets

Recommended dosage: 300-400 mg per a day

Health benefits:

Immune function

There is considerable evidence for lactoferrin being involved in the stimulation of the immune system, including enhancing production and/or activation of immune cells, such as lymphocytes.

1 Sharon M Donovan, The Role of Lactoferrin in Gastrointestinal and Immune Development and Function: A Preclinical Perspective, J Pediatr. 2016 J Pediatr. 2016 Jun;173 Suppl:S16-28

Healthy Aging

Anti-aging interventions of LF have proven to be safe and effective for various pharmacological activities, such as anti-oxidation, anti-cellular senescence, anti-inflammation, and anti-carcinogenic. LF has a pivotal role in modulating the major signaling pathways that influence the longevity of organisms.

Li B., et al., The effect of lactoferrin in aging: role and potential. Food Funct. 2022 Jan 24;13(2):501-513.

Reduce cancer risk

Lactoferrin was recently found to be an ideal carrier for chemotherapeutics, even in the treatment of brain tumours, due to its ability to cross the blood-brain barrier. Thus, it appears a promising tool for cancer prevention and treatment, especially in combination therapies.

Cutone A., et al., Lactoferrin's Anti-Cancer Properties: Safety, Selectivity, and Wide Range of Action. Biomolecules 2020; 10.

Healthy Brain

Lactoferrin rapidly crosses the blood-brain barrier via receptor-mediated transcytosis and accumulates in the brain capillary endothelial cells. As a regulator of neuro-redox, microglial lactoferrin is critical for protection/repair of neurons and healthy brain function. Iron imbalance and oxidative stress are common among patients with neurodegenerative disorders such as Parkinson's disease, Alzheimer's disease, dementia, depression, and multiple sclerosis.

Naidu A G S., et al., Lactoferrin for Mental Health: Neuro-Redox Regulation and Neuroprotective Effects across the Blood-Brain Barrier with Special Reference to Neuro-COVID-19. J Diet Suppl. 2021 May 12;1-35.

Antibacterial & Antiviral COVID-19 effects

Lactoferrin can degrade viral RNA and DNA and thus prevent them from causing damage in the cell. It can also block the binding of viruses to human host cells. Lactoferrin can also bind directly to viruses and damage them.

Lactoferrin acts in the acute phase of infection, inhibiting the virus penetrating the cell, as well as when the virus has already entered the cell (1).

Also a few clinical trials suggest that Lactoferrin helps to prevent and treat COVID-19 (2).

1 Redwan EM, et al., Potential lactoferrin activity against pathogenic viruses. Comptes rendus biologies 2014; 337.

2 Gallo V., et al., Antiviral properties of whey proteins and their activity against SARS-CoV-2 infection. J Funct Foods . 2022 Feb;89:104932.

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