ACB Yogurt Extract



nourishing Pro-biotic Inspiration Rejuvenating Skin & Hair Care

BACKGROUND

Yogurt is widely recognized for its health benefits. The principal of these have often been attributed to the vitamins, calcium and mineral content. In addition to its traditional role as a food product, yogurt is used to improve skin conditions. First developed as early as 2000 B.C. in Middle-Eastern civilizations, yogurt was a way to preserve milk. One type of yogurt is thought to have originated by nomadic tribes of Eastern Europe and Western Asia. However, fermented and cultured milks may actually predate recorded history.

Yogurt is produced by inoculating milk with *L. bulgaricus* and *S. thermophilus*. Not unexpectedly, milk contains significant concentrations of growth factors. Researchers have reported that bovine milk contains platelet-derived growth factor (PDGF), Insulin-like growth factor (IGF-I, IGF-II), as well as transforming growth factor (TGF-â)¹. These growth factors, present in the whey or liquid fraction, stimulate fibroblast proliferation as well as the production of extra cellular proteins such as collagen². Collagen is described as the protein that forms the structural grid that holds other skin structures in place, thus an important skin molecule. Collagen gives the skin its strength and durability, while playing a role somewhat similar to that of steel rods in a reinforced concrete block.

SCIENCE

As with any other protein, collagen is composed of amino acids. Yet, it is unusually rich in a few specific amino acids, hydroxyproline, lysine and glycine. Many believe that foods or supplements rich in these amino acids may benefit the skin by stimulating collagen production. Increasing collagen production is important because the age-related decline in the collagen synthesis is partly responsible for the signs of skin aging such as wrinkles and sagging. One of the important concepts to consider is that the aforementioned growth factors are proteins. In any Inflammatory event, protease (for protein breakdown) activity is increased. If a single growth factor is applied to the skin, it is likely that its effects will be inhibited by the presence of endogenous proteases³.



Code Number: 20070

INCI Name: Water & Yogurt Extract INCI Status: Approved REACH Status: Complies CAS Number: 7732-18-5 & N/A EINCS Number: 231-791-2 & N/A

Origin: Animal, Synthetic **Processing**: **GMO** Free No Ethoxylation No Irradiation No Sulphonation Additives: Preservatives: None Antioxidants: None Other additives: Tetrasodium EDTA Solvents Used: Water Appearance: Clear, Colorless to Yellow Liquid Soluble/ Miscible: Water Soluble 85.9% Biodegradability Microbial Count: <100 CFU/g, No Pathogens

Suggested Use Levels: 1.0 - 5.0% Suggested Applications: Conditioning, Nourishing

Benefits of ACB Yogurt Extract

- Rejuvenating
- Antioxidant Protection
- Great in any formulation

ACB Yogurt Extract



A field of interest where yogurt is receiving a great deal of attention is probiotics. A probiotic is "an organism that contributes to the health and balance of the intestinal tract; also referred to as 'friendly', 'beneficial', or 'good' bacteria which when ingested act to maintain a healthy intestinal tract and help fight illness and disease"⁴. Probiotics are found in live microbial food supplements and fermented foods such as yogurt. They are known as non-pathogenic microorganisms that may significantly improve one's health. Lactic Acid Bacteria (LAB) produce a variety of health benefits for the body inside and out.

Studies focused on the benefits of probiotics, have shown an increase in immune function, more efficient mineral metabolism, and beneficial changes in flora. A single mechanism is not responsible for the benefits. Specific and non-specific immune responses occur as a result of probiotic treatment. It is generally speculated that presentation of LAB to the immune system relaxes it from environmentally induced hyper-vigilance. One of the main products produced by LAB is lactic acid. Lactic acid, being a member of the alpha hydroxy acids or AHAs, also works on the skin's lipids by dismantling them, which allow the keratinized skin cell outer layer to fall off. This process is done by their ability to weaken bonds which hold keratinized skin cells together, thus provoking the keratinized skin cells to shed from the skin's surface.

BENEFITS

ACB Yogurt Extract offers the opportunity to capitalize on the benefits associated with yogurt in a variety of skin and hair care applications. Yogurt is a consumer recognizable material capable of nourishing and rejuvenating the complexion.

EFFICACY DATA

An Oxygen Radical Absorbance Capacity (ORAC) assay was conducted to assess the antioxidant capacity of **ACB Yogurt Extract**. The oxygen radical absorbance capacity (ORAC) assay is a standard method used to assess antioxidant capacity of physiological fluids, foods, beverages, and natural products. The assay quantitatively measures a sample's ability to quench free radicals that have the potential to react with and damage cellular components. As shown in Figure 1, **ACB Yogurt Extract** exhibited antioxidant activity comparable to 200µM Trolox[®]. The antioxidant capacity of **ACB Yogurt Extract** increased as the concentration increased. As a result, we can assure that its ability to minimize oxidative stress is dose dependent and that **ACB Yogurt Extract** is capable of providing antioxidant properties and aids in the anti-aging process through protection at the cellular level.





References

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