

20070.

ACB Yogurt Extract

PROTEINS



IN VIVO



IN VITRO



CHINA



THE FEATURES.

As the trend of holistic wellness continues to grow, consumers demand ingredients with proven results and natural origins. Yogurt is a consumer recognizable material capable of nourishing and rejuvenating the complexion. ACB Yogurt Extract is standardized for natural lactic acid content, which enhances cellular turnover to reveal a brighter and more even skin tone.

Water & Yogurt Extract

Actions

Cellular Renewal
Antioxidant
Great for Skin
Nourishing

TECHNICAL DATA SHEET.

THE REGULATION.

INCI. Water & Yogurt Extract
CAS. 7732-18-5 & N/A
EINECS. 231-791-2 & N/A
EUROPE. Approved
USA. Approved
CHINA. Approved

THE SPECIFICATION.

Origin. Animal & Synthetic
Natural Antimicrobial. None
Preservatives. None
Solvents Used. None
Soluble/Miscible. Water Soluble
Appearance. Clear Liquid,
Colorless to Yellow
Use Level. 1- 5 %



THE STORY.

Yogurt is widely recognized for its health benefits. The principal of these have often been attributed to the vitamins, calcium, and mineral content. Nomadic people living in the Northern Caucasus region of Russia fermented milk into yogurt to help extend its shelf life. These people are renowned for their longevity, having one of the highest populations of centenarians, or people over 100 years old¹. The fermentation technique has been passed down for generations, and now yogurt has become a dietary staple.

Today, yogurt is well-rooted in the nutrition space as a source of protein and digestion-enhancing probiotics. In one trip to the dairy aisle at the grocery store, one can see the vast array of modern yogurt offerings. Thanks to its popularity, yogurt has crossed over into the personal care space because of consumer interest. Aside from its traditional role as a food product, yogurt is known to improve skin conditions when applied topically. Topical applications of yogurt have been hailed as holistic remedies for relieving sunburns and soothing other skin maladies¹.

THE SCIENCE.

Milk, the starting material for yogurt, contains significant concentrations of growth factors such as platelet-derived growth factor, insulin-like growth factors, as well as transforming growth factor². These growth factors have been shown to stimulate fibroblast proliferation as well as the production of extracellular proteins such as collagen².

A field of interest where yogurt is receiving a great deal of attention is in relation to probiotics, as yogurt is produced by inoculating milk with *Lactobacillus bulgaricus* and *Streptococcus thermophilus*, which are probiotic microorganisms. The microorganisms metabolize milk into lactic acid, changing the liquid consistency into a thicker, tasty yogurt.

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 disease³. 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. They inhabit one's intestinal tract, skin, urogenital tract, oral and nasal cavities, and any area that is exposed to the outside world³.

Lactic acid bacteria are a group of microorganisms which are commonly used for food preservation but can also produce a variety of health benefits. Studies have shown consuming fermented foods, such as yogurt, leads to increased immune function, more efficient mineral metabolism, and enhanced digestion⁴. A single mechanism is not responsible for these benefits. Specific and non-specific immune responses occur because of consuming probiotics. It is generally speculated that presentation of lactic acid bacteria to the immune system relaxes it from environmentally induced hyper-vigilance.

Lactic acid, a byproduct of lactic acid bacteria, is a type of alpha hydroxy acid (AHA) which is frequently employed in the personal care field as a type of chemical exfoliant. The cellular renewal process is thanks to lactic acid's ability to weaken bonds which hold dead skin cells together, allowing the dead cells to easily shed from the skin's surface⁴. ACB Yogurt Extract, standardized for natural lactic acid content, offers impressive antioxidant and cellular renewal efficacy for formulating efficacious personal care products.

THE BENEFITS.

Skin

Cellular Renewal Cellular Renewal Assay



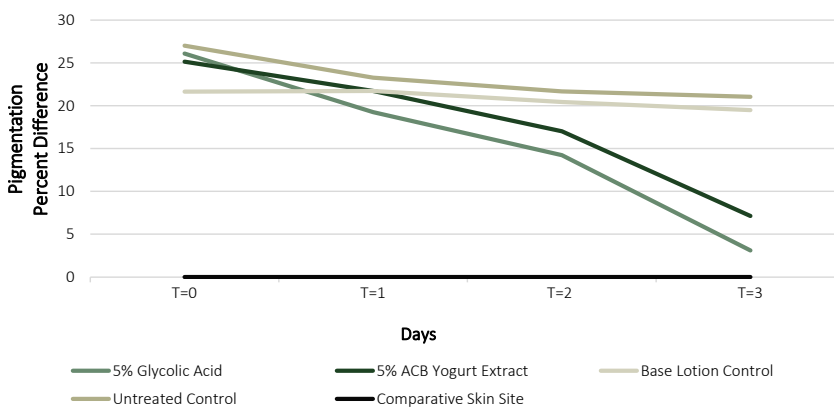
Antioxidant ORAC Assay



THE EFFICACY.

Cellular Renewal Assay.

ACB Yogurt Extract was evaluated for its ability to accelerate cell renewal by means of a traditional skin pigmentation assay protocol. Approximately 0.2 g of 5.0% glycolic acid positive control, 5.0% ACB Yogurt Extract, and the base formula were applied to three respective locations on the volar forearm. Pigmentation index readings were taken daily for all five identified sites until the active test site returned to baseline pigmentation levels.



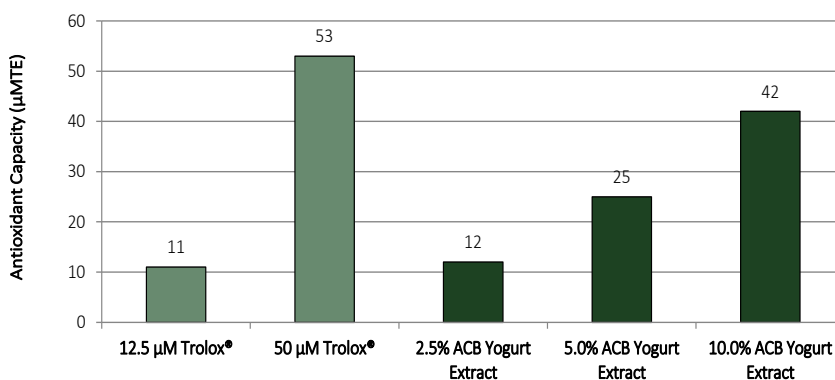
Contributes to cellular renewal compared to glycolic acid (at 5%)

Renew.

Vibrant skin tone & Encourage cellular renewal

ORAC Assay.

Oxygen Radical Absorbance Capacity (ORAC) assay was conducted to assess the antioxidant capacity of ACB Yogurt Extract. Solutions of Trolox® (positive control) were prepared in 75mM potassium phosphate buffer. Materials were prepared at three different concentrations/dilutions. Trolox® was used as a reference for antioxidant capacity and prepared at a concentrations ranging from 12.5 µM to 50 µM in 75 µM potassium phosphate buffer. Results show that ACB Yogurt Extract is capable of providing antioxidant properties and aids in the anti-aging process through protection at the cellular level.



Exhibited greater antioxidant activity than 12.5 µM Trolox®. (at 2.5%)

Antioxidant.

Free radical quenching abilities & Cellular protection

References:

- Chandan, Ramesh C. "Health benefits of yogurt." Health Benefits of Fermented Foods and Beverages 275 (2015).
- Shing Y and Klagsbrun M. Purification and characterization of a bovine colostrum-derived growth factor. Mol Endocrinol 1:3335-338, (1987).
- Isolaauri E, Arvola T, Sutas Y, Moilanen E, Salminen S. Probiotics in the management of atopic eczema. Cline Exp Allergy 30(11):1604-10, (2000).
- Jeong, Ji Hye, Chang Y. Lee, and Dae Kyun Chung. "Probiotic lactic acid bacteria and skin health." Critical reviews in food science and nutrition 56.14 (2016): 2331-2337.

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