



AC Water Kefir PHA

INCI: Water & Opuntia Ficus-Indica Fruit Extract & Lactobacillus Ferment

What is Kefir?

Clusters of **complex polysaccharides**, live bacteria, and yeasts existing in a **symbiotic** matrix.

Kefir cultures are known to consume sugar to produce acids, carbon dioxide, and small amounts of ethanol.

Traditional **milk kefir** is typically **fermented** overnight at room temperature.

The **fermentation process** yields a sour, carbonated, slightly alcoholic beverage, with a consistency and taste similar to drinkable yogurt!



Ancient Technique

Nomadic people living in the Northern Caucasus region of Russia fermented milk with kefir grains to make supplies last longer.

The people are renowned for their longevity, having one of the highest populations of centenarians, or people over 100 years old!

Kefir grains became family heirlooms, and the technique was passed down for generations, which made milk kefir a dietary staple.



Kefir Gains Popularity

A Russian immunologist, Dr. Metchnikoff, found milk kefir was one of the keys to longevity and well-being.

By the 1930s, kefir was being produced on a large scale to meet **public demand** in Russia.

Milk kefir was introduced to the Western world by the 1960s, and has become a food with **global popularity**.



Milk

KEFIR



Derived from milk, milk kefir grains are creamy-white and curd-like



Fermented with milk, such as goat milk and sheep milk



Milk kefir provides a source of protein as well as prebiotics and probiotics

Water

KEFIR



Derived from prickly pear cacti, water kefir grains are clear-yellow crystals



Fermented with sugar water, such as fruit juices and coconut water



Water kefir produces polyhydroxy acids, like gluconic acid

Vegan & Gentle PHA

Active Concepts has developed a **natural polyhydroxy acid**, gentle enough for sensitive or reactive skin types.

Vegan gluconic acid from **prickly pear** inspires inclusive skin type personalization.

PHAs enhance **natural skin beauty** by promoting **collagen synthesis**.

Buff away tired skin with a gentle approach.



AC Water Kefir PHA



Prickly Pear Cactus

A desert botanical, cacti are a source of nutrition, moisture, and an exotic powerhouse full of water kefir grains.



Water Kefir Grain

Gathered from the prickly pear cactus, these crystal-like "grains" are required for water kefir fermentation.



Gluconic Acid

Fermentation of the water kefir grains with sugar water creates this polyhydroxy acid, perfect for gentle exfoliation.

Available Efficacy Studies



In Vitro

- Sirius Red Fast Green Report

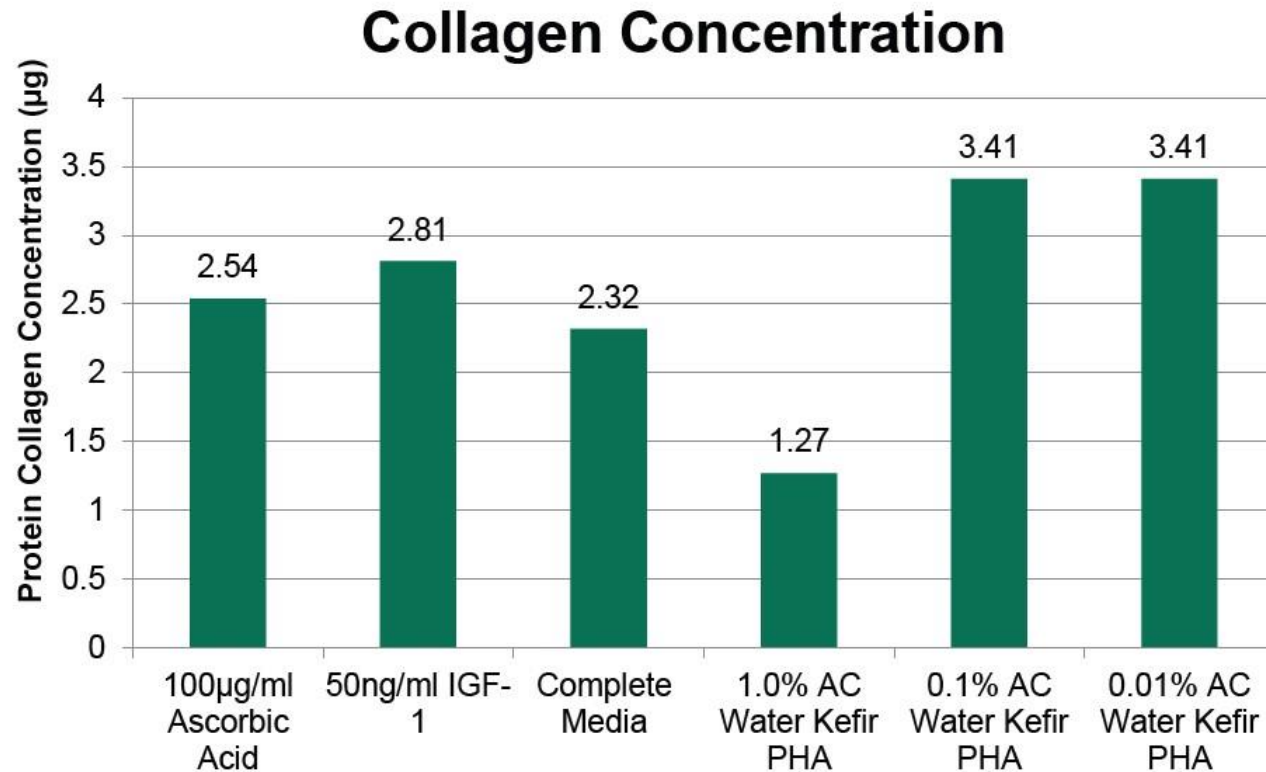
In Vivo

- Cellular Renewal Assay

Tox & Safety

- AMES Test Report
- Cellular Viability Assay Report
- Dermal & Ocular Irritation Tests
- OECD 201 Freshwater Alga Growth Inhibition Test Report
- OECD 301B Ready Biodegradability Assay
- OECD TG 442C Direct Peptide Reactivity Assay
- OECD TG 442D *In Vitro* Skin Sensitization Report
- Phototoxicity Assay Analysis Report

Sirius Red Fast Green Report



1%, 0.1%, and 0.01% concentrations of AC Water Kefir PHA were added to the serum-free DMEM and incubated with fibroblasts for 24 hours. AA2G and IGF-1 were used as positive controls.

Fig 1. Effect of AC Water Kefir PHA on Collagen Concentration.

AC Water Kefir PHA at 0.01% and 0.1% increased collagen synthesis compared to untreated fibroblasts by

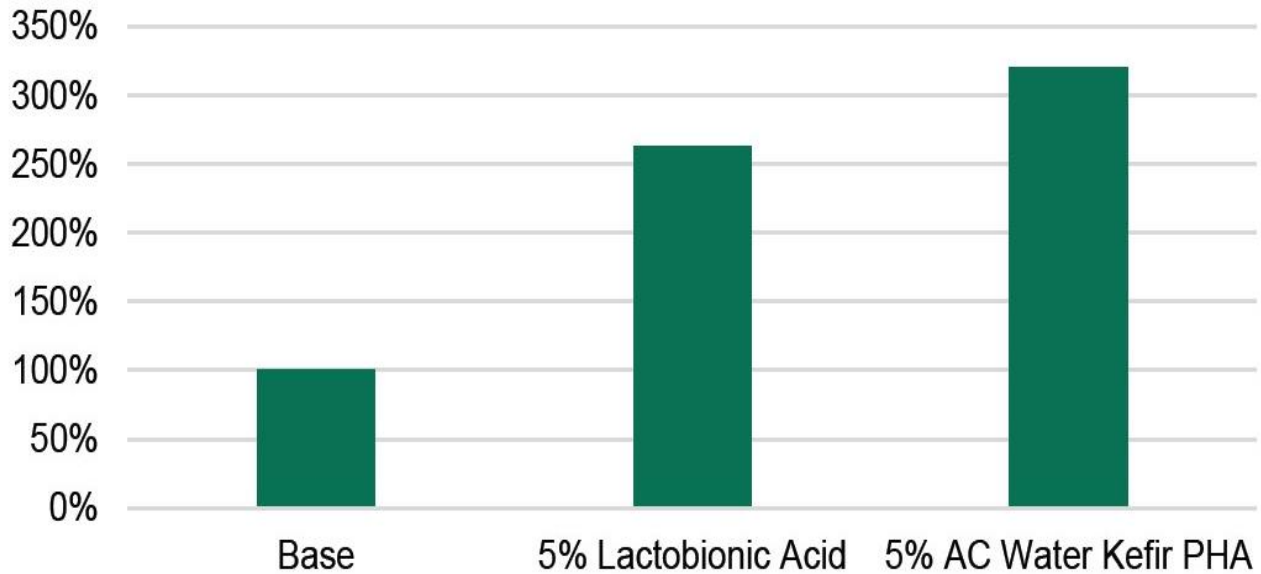
Benefits

46%

This is an indicator of dose-dependent collagen synthesis. We can conclude that AC Water Kefir is able to provide potent collagen boosting benefits.

Cellular Renewal Assay

Cumulative Cellular Renewal



Dermal Dye Max[®] was used to induce skin pigmentation, then the skin sites were treated with either 5% lactobionic acid positive control, 5% AC Water Kefir PHA, or the base lotion formula. Readings were taken every 24 hours until the active test sites returned to baseline.

Fig 2. Cellular Renewal abilities of AC Water Kefir PHA compared to Lactobionic Acid

AC Water Kefir PHA
increased cumulative cellular
renewal compared to the
base lotion by

Benefits

320%

We can conclude AC Water Kefir
PHA improves cellular renewal, an
indicator of vibrant skin tone and
even texture.

Summary

WHAT.

AC Water Kefir PHA is a vegan, natural, polyhydroxy acid perfect for gentle chemical exfoliation.

WHY.

Water kefir **fermentation** creates gluconic acid, a PHA which dissolves bonds that hold dead skin cells together.

MADE OF.

Standardized for **gluconic acid**, naturally derived from the water kefir grains of *Opuntia Ficus-Indica* Fruit Extract.

ACTION.

AC Water Kefir PHA provides collagen synthesis boosting and gentle cellular renewal benefits to sensitive or reactive skin types.



AC Water Kefir PHA



Code: 22064

INCI: Water & Opuntia Ficus-Indica Fruit Extract & Lactobacillus Ferment

Appearance: Clear to Hazy Liquid, Yellow to Orange

Suggested Use Level: 1-10%

Natural & Vegan PHA | Increases Cellular Renewal | Promotes Collagen Synthesis

Standardized for Natural Gluconic Acid: 18.0% to 24.0%



In Vitro



In Vivo



ISO 16128
NI & NOI



Vegan
Compliant



COSMOS
Compliant



China
Compliant

Active Concepts



@activeconceptsglobal

info@activeconceptsllc.com

www.activeconceptsllc.com

