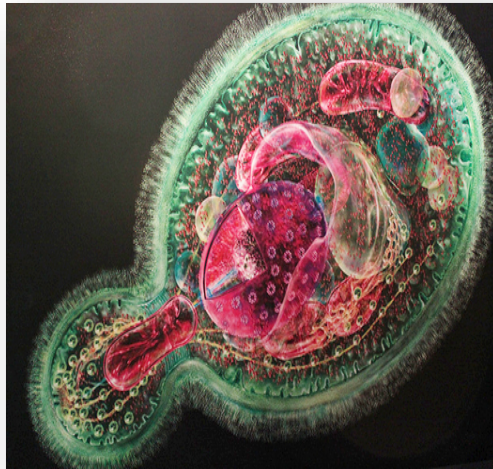


# AC Phytocoll PF

Natural Active + Skin & Hair Care + Improves Moisture



Tomorrow's Vision... *Today!*<sup>®</sup>

# AC Phytocoll PF

## Technical Information:



**Product Code:** 16564

**INCI Name:** Yeast Extract

**INCI Status:** Conforms

**Suggested Use Levels:** 1.0–10.0%

**Suggested Applications:** Moisturizing, Conditioning, Hair + Skin Care

**Solubility:** Water soluble

# Soluble Collagen



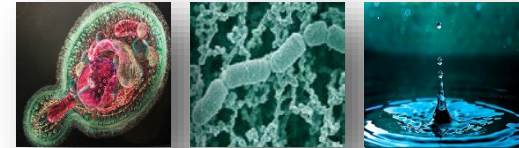
- Building block of quality cosmetics due to high molecular weight
- Excellent film former
- Originally sourced from animals
  - The relatively high hydroxyproline content of mammalian collagen allows for the formation of H-bonded water bridges tying moisture to the peptide backbone
- The threat of prion diseases, such as Mad Cow Disease, and support for animal rights initiated research into alternative sources

# Yeast

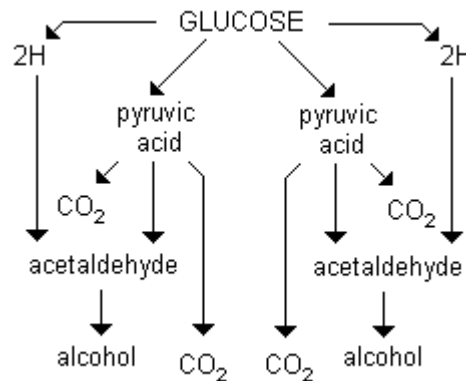


- High molecular weight proteins with hydroxyproline-rich regions
- Exists in the form of glycoproteins
- 3:1 carbohydrate to protein ratio
- Sugar groupings with excess hydroxyl groups improves water binding ability within yeast collagen
  - Binding more water than mammalian collagen

# Yeast



- Any fungus of the *Saccharomycetaceae* family
- Alcohol & Carbon Dioxide are byproducts of yeast fermentation
- Yeasts in commercial applications:
  - ✓ *Saccharomyces uvarum*, bottom fermenting, or lager yeast
  - ✓ *Saccharomyces cerevisiae*, a top fermenting yeast



# AC Phytocoll PF

## 1:1 Formula Replacement



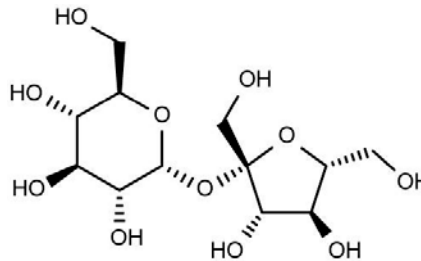
- **AC Phytocoll PF** can be formulated as a **direct** 1:1 replacement for animal derived collagen products
- This product, made from yeast, on a cellular level contains many of the same processes found in humans
- Yeast is used as a vector to produce human collagen in cultures

# AC Phytocoll PF

## How:



- **AC Phytocoll PF** is produced by lysing yeast cells and isolating the hydroxyproline-rich glycoproteins through molecular sieves
- The presence of sugars enhances moisture binding properties
  - Typically absent in mammalian collagens
- Duplicates the aesthetics of mammalian collagen while delivering enhanced levels of moisture to skin and hair



# AC Phytocoll PF

## Benefits:

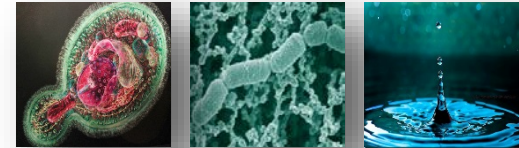
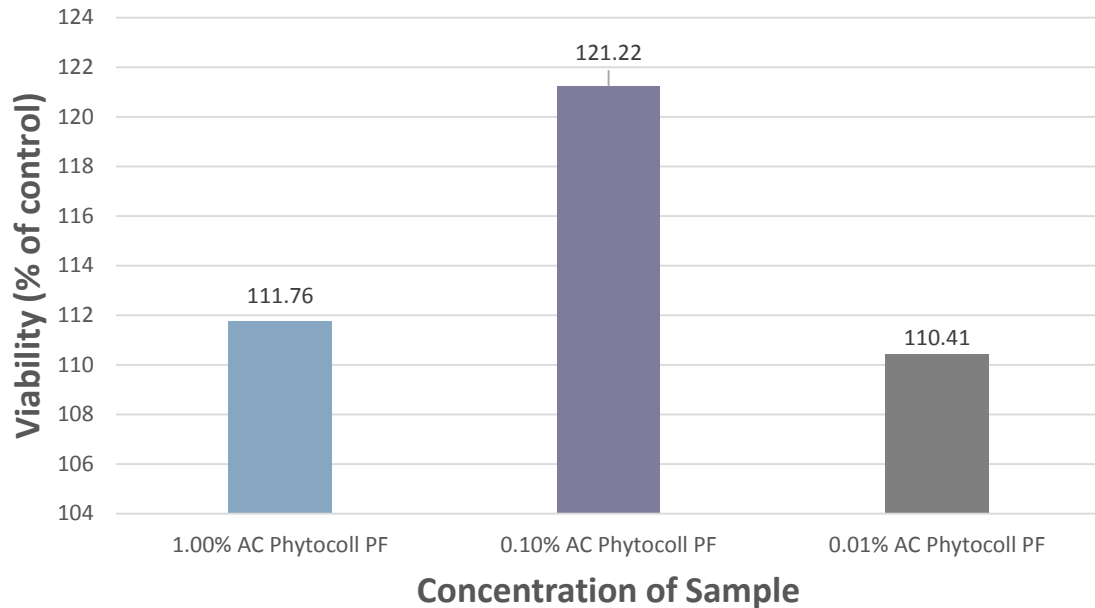


- ✓ Free of animal proteins
- ✓ Reduces the appearance of fine lines and wrinkles
- ✓ Duplicates the aesthetics of mammalian collagen
- ✓ Moisturizes
- ✓ Conditions skin
- ✓ Hydrates
- ✓ Improves skin tone
- ✓ Perfect for skin & hair care



# AC Phytocoll PF Efficacy Assay Results

## Cellular Viability



### Protocol

- Human dermal fibroblasts were seeded into 96-well tissue culture plates and allowed to grow to confluence in complete Dulbecco's Modified Eagle Medium (DMEM) and incubated for 24 hours
- Cellular metabolism of **AC Phytocoll PF**-treated fibroblasts expressed in terms of percent of control

## Results:

**AC Phytocoll PF** exhibited positive results by increasing cell metabolism and viability at all three concentrations

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# ACTIVE CONCEPTS LLC

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## THANK YOU

For more information –Visit our website!

[www.activeconceptsllc.com](http://www.activeconceptsllc.com)