



## Moisturization and Hydration Assay

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**Tradename:** AC Soluble Collagen 1% PF

**Code:** 20510PF

**CAS #:** 7732-18-5 & 9007-34-5

**Test Request Form #:** 2509

**Lot #:** 46430P

**Sponsor:** Active Concepts, LLC; 107 Technology Drive Lincolnton, NC 28092

**Study Director:** Maureen Danaher

**Principle Investigator:** Jennifer Goodman

**Test Performed:** Moisturization/ Hydration Assay

### Introduction

An *in-vivo* study was conducted over a period of two weeks to evaluate the moisturization benefits of **AC Soluble Collagen 1% PF**. 10 M/F subjects between the ages of 23-45 participated in the study. Results indicate that this material is capable of significantly increasing hydration over time.

The Moisturization Assay was conducted to assess the moisturizing ability of **AC Soluble Collagen 1% PF**.

### Materials

A. Equipment: DPM 9003 Novameter (NOVA Technologies).

### Methods

The DPM 9003 Novameter (NOVA Technologies) is a capacitance instrument that measures skin impedance and is designed to provide a non-invasive, objective, reproducible method of measurement to quantify relative hydration of the skin. The standard probe has two parallel brass ring electrodes separated by an isolater (with inner and outer diameters of 4.34mm and 8.76mm and an inner and outer electrode distance of 1mm). The instrument works by integrating measurements at different frequencies of the applied alternating electrical current at preselected variable frequencies of up to 1 MHZ. Capacitance values are then calculated from the phase delay of the signal.

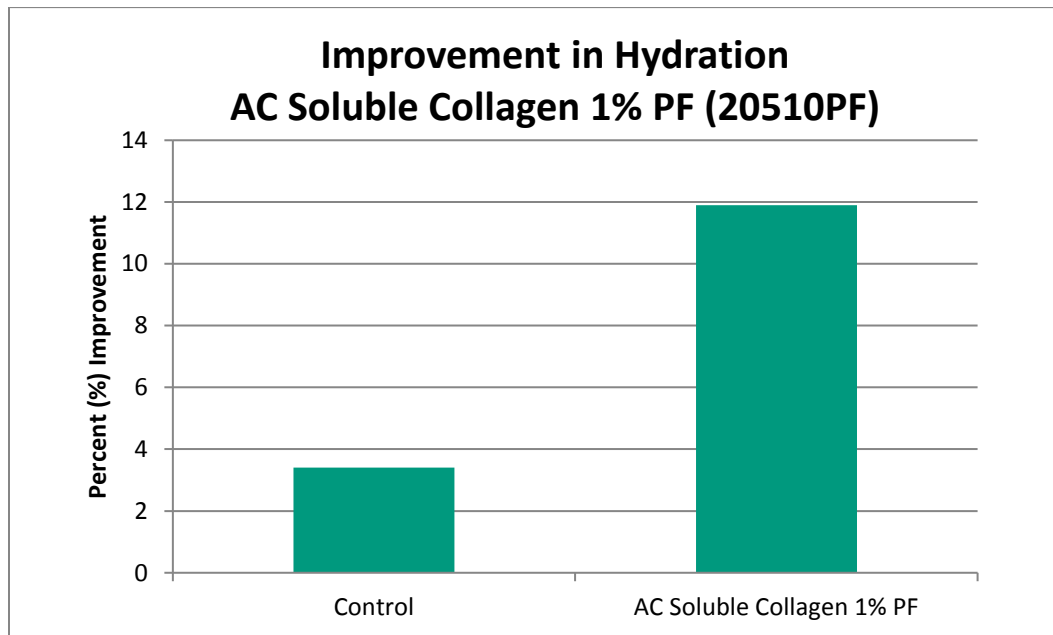
10 volunteers M/F between the ages of 23 and 45 and who were known to be free of any skin pathologies participated in this three week study. The DPM 9003 Novameter (NOVA Technologies) measures the relative hydration or moisturization of the skin. The presence of moisture in the skin improves conductance and therefore results in higher readings than dry skin. Therefore the higher the levels of moisture, the higher the readings will be. Baseline moisturization readings were taken on day one of the study.

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Following initial measurements, all subjects were asked to apply 2 mg of each test material on designated randomized treatment areas on the volar forearm twice daily for two weeks. The test material consisted of 5.0% **AC Soluble Collagen 1% PF** in a base (Cetaphil Base Lotion).

## Results

**AC Soluble Collagen 1% PF** showed very high moisturizing capabilities at a 2.0% concentration



**Figure 1.** Improvements in hydration with AC Soluble Collagen 1% PF

## Discussion

As evidenced in a hydration efficacy study of **AC Soluble Collagen 1% PF** on the volar forearm hydration levels were improved and maintained over two weeks when compared to the baseline results. On average, after two weeks, 5.0% **AC Soluble Collagen 1% PF** improved skin hydration by 11% when compared to baseline hydration values and by 8.0% when compared to the test vehicle. **AC Soluble Collagen 1% PF** is a film forming moisturizer that is able to hydrate the skin and provide the scaffolding for elasticity and strength. **AC Soluble Collagen 1% PF** may be used to restore one's youthful appearance by hydrating the skin and helping to increase its natural collagen production.