



## Moisturization/ Hydration Assay

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**Tradename:** Probacillus Revive

**Code:** 16618

**CAS #:** 9015-54-7

**Test Request Form #:** 963

**Lot #:** 37886

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

**Study Director:** Erica Segura

**Principle Investigator:** Meghan Darley

**Test Performed:**

Moisturization/ Hydration Assay

### Introduction

An *in-vivo* study was conducted over a period of three weeks to evaluate the moisturization benefits of **Probacillus Revive**. 10 M/F subjects between the ages of 23-45 participated in the study. Results indicate that this material is capable of significantly increasing moisturization compared to the control.

The Moisturization Assay was conducted to assess the moisturizing ability of **Probacillus Revive**.

### Materials

A. Equipment: 9003 DPM Novameter

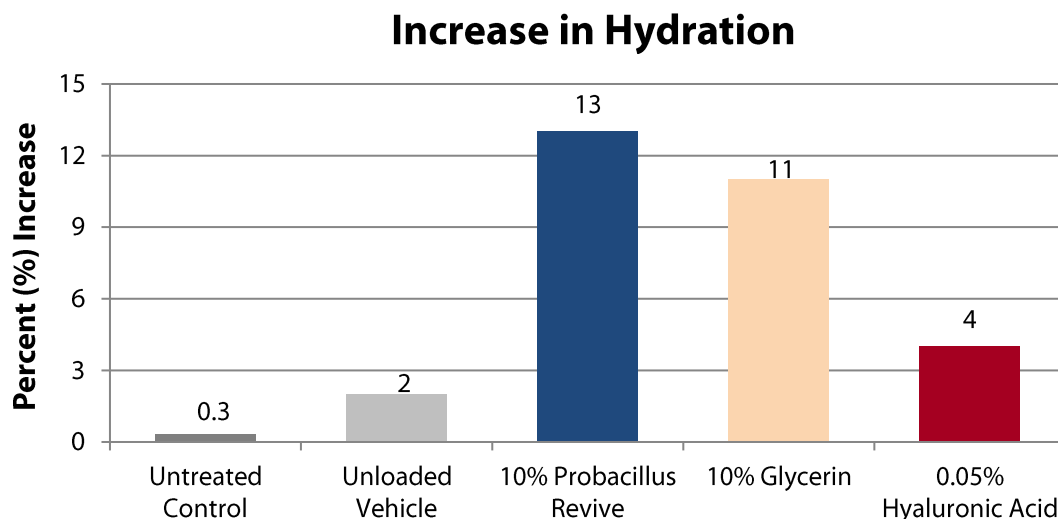
### Methods

An *in vivo* moisturization study was performed using a 9003 DPM Novameter to quantitatively determine improvements in hydration following treatments on the volar forearm with 10% Probacillus Revive, 10% glycerin and 0.05% hyaluronic acid in o/w emulsions. The concentration of hyaluronic acid tested was chosen based on comparable cost contribution to a formula when compared to the other ingredients. For added perspective, measurements of an untreated test site and a site treated with the unloaded vehicle were also recorded.

### Results

**Probacillus Revive** showed very high moisturizing capabilities at a 10.0% concentration. Please note, each value is an average of three consecutive readings per test site.

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**Figure 1.** Percent Increase in skin hydration following the application of test and control materials.

## Discussion

As evidenced in a efficacy study of **Probacillus Revive** on skin, our findings indicate that **Probacillus Revive** is 18.0% more effective in moisturizing the skin than glycerin, a known humectant. Furthermore, Probacillus Revive worked 69.0% better at moisturizing the skin than a cost comparable concentration of Hyaluronic Acid. This study was conducted to demonstrate that **Probacillus Revive** is a more effective approach to moisturization than glycerin and also provides brand differentiation. Additionally, **Probacillus Revive** is the more economical choice in moisturizing agents when compared to Hyaluronic Acid. Furthermore, the cost contribution of the two when compared shows **Probacillus Revive** moisturizes much more effectively.

**Probacillus Revive** was designed to provide moisturizing benefits, however with the present study we can confirm that this succulent botanical ingredient is not only capable of providing protective benefits but also ideal for moisturizing and skin hydrating personal care applications.