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Tradename: ACB Pisum Sativum Peptide

Code: 16810

Lot #: NC180315-F

CAS #: 100209-45-8

Test Request Form #: 4642

Sponsor: Active Concepts, LLC; 107 Technology Drive Lincolnton, NC 28092 Study Director: Maureen Danaher Principle Investigator: Parisa Mehrzadeh

Test Performed:

Gravimetric Analysis of Hair Hydration

Introduction

The study was conducted to evaluate the hair hydration benefits of **ACB Pisum Sativum Peptide** by gravimetric means.

Materials

A. Equipment: Sealed glass chamber, Relative humidly monitor, Analytical balance (Mettler Toledo Model ME4002E). This study was conducted using Sensationnel Bare & Natural Brazilian 100% Virgin Remi Unprocessed Human Hair (Hair Zone Moonachie, NJ).

Methods

Gravimetric analysis is an analytical method in which the analytical signal is a measurement of mass or a change in mass. Substantivity of a material can be measured as a change in mass after the material is exposed to controlled humidity. An increase in hydration can be measured by comparing the weight of the test material at over time after application and signifies hydrating capabilities.

Before measuring the moisturizing effect, the hair swatches were kept in a humidity controlled box (22°C, 50% Relative Humidity) for 24 hours. Hair swatches were weighed on an analytical balance and their starting weight was recorded. The hair swatches were immersed in either 5.0% ACB Pisum Sativum Peptide aqueous solution, 5.0% Wheat Hydrolysate aqueous solution (positive control) or left untreated (negative control). The treated swatches were immersed in their respective solutions for three hours at 22°C and then rinsed with deionized water. The hair swatches were air dried in the humidity controlled box (22°C, 50% Relative Humidity) for 48 hours. The swatches were then weighed and with the analytical balance for final measurement.

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Results



Figure 1. Average Percent Increase in Hydration.

Discussion

Both the innovative hydrolysis method used in the production of **ACB Pisum Sativum Peptide** and the traditional method of hydrolysis induced when creating wheat hydrolysate yield a protein hydrolysate capable of producing hair hydrating benefits at virtually identical levels. This demonstrates a novel approach in hydrolysis, such as the one used in the manufacturing of **ACB Pisum Sativum Peptide** provides just as much moisture as hydrolyzed wheat protein with proven hydration benefits.

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