



Sebum Reduction Assay

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Tradename: AC Sebum Control Enzyme PF

Code: 20395PF

CAS #: 107-88-0 & 7732-18-5 & 84775-57-5

Test Request Form #: 5781

Lot#: N191030E

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

Study Director: Maureen Danaher

Principle Investigator: Kara Rivera

Test Performed:

DermaLab Combo & Sebum Collecting Strips

Introduction

An *in-vivo* study was conducted to evaluate the ability of **AC Sebum Control Enzyme PF** to reduce facial sebum when incorporated into a base lotion. 4 M/F subjects between the ages of 21 and 35 participated in the study. Results indicate that this material is capable of significantly decreasing sebum, a common problem, over time.

The Sebum Reduction Assay was conducted to assess the sebum reducing capability of **AC Sebum Control Enzyme PF**.

Materials

A. Equipment: DermaLab Skin Combo & Sebum Collecting Strips

Methods

The DermaLab Skin Combo & Sebum Collecting Strips provide information about the skin's sebum. Sebum is the oily secretion of the sebaceous glands which can become visible throughout the day on the skin.

4 volunteers between the ages of 21 and 35 who were known to be free of any skin pathologies participated in this study. Simple Kind to Skin Hydrating Light Moisturizer was placed on the right side of the face as the control while the left side was treated with the base lotion + 5.0% **AC Sebum Control Enzyme PF**. A Dermalab skin combo with sebum collecting strips were used to measure the sebum levels on the subject's forehead, nose, and chin at baseline and after 6 hours. The sebum collecting strips were applied for 15 seconds to collect surface sebum from the participants tested areas in which the Dermalab Skin Combo then measured the amount of sebum and assigned a value. The average was taken of these values.

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The presence of sebum on the skin results in higher readings than sebum lacking skin. Therefore the higher the levels of sebum, the higher the readings from the DermaLab will be. Baseline sebum readings were taken at the start of the study. Each participant was asked to classify their skin type on a scale of 1 (extremely dry) - 10 (extremely oily).

Results

AC Sebum Control Enzyme PF exhibited sebum-reducing results in all participants.

Table 1. Data Collected.

Participant	Self-assessment rating 1 (very dry) -10 (very oily)	Baseline Sebum Reading (Forehead, Nose, Chin)	Control Sebum Reading After 6 Hrs (Forehead, Nose, Chin)	Experimental Sebum Reading after 6 Hrs (Forehead, Nose, Chin)
One	5	11, 19, 20	18, 23, 15	9, 19, 0
Two	3	14, 20, 5	27, 20, 15	15, 7, 0
Three	10	24, 28, 30	23, 27, 26	5, 20, 18
Four	5	25, 19, 22	27, 21, 20	0, 2, 7

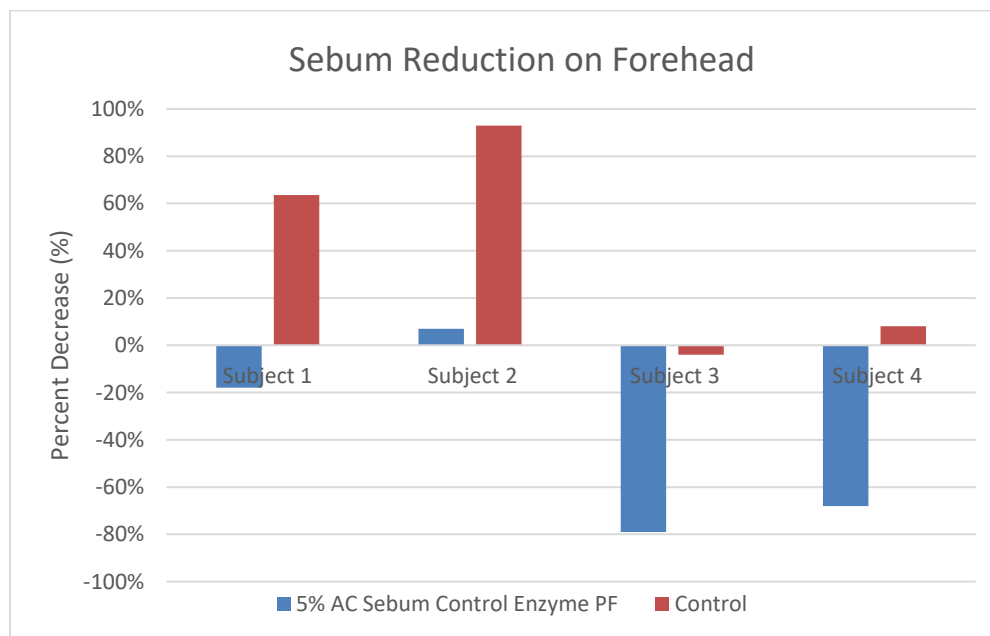


Figure 1. Percent Reduction of Sebum per Subject in the Forehead Region.

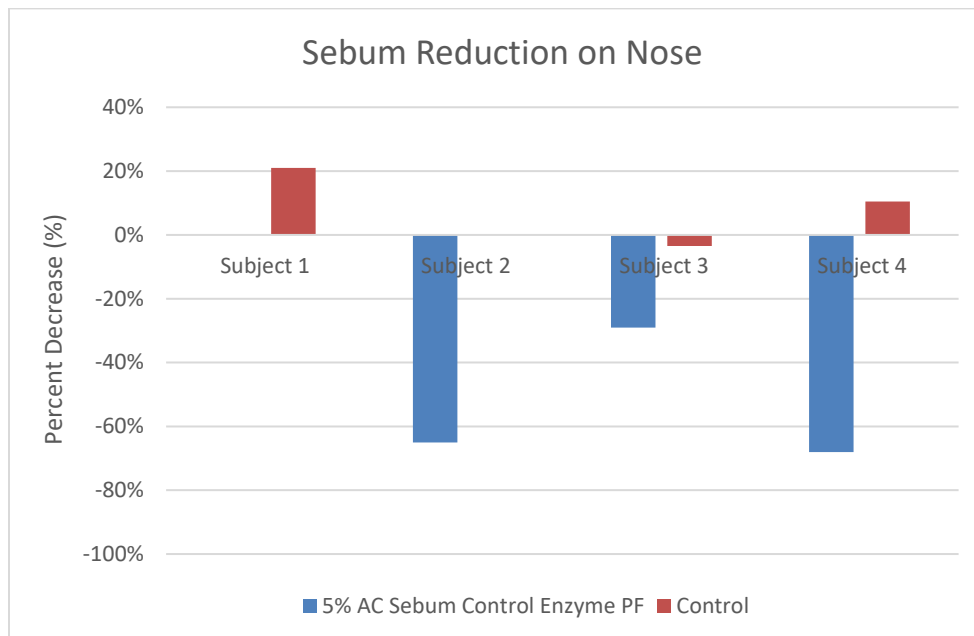


Figure 2. Percent Reduction of Sebum per Subject in the Nose Region.

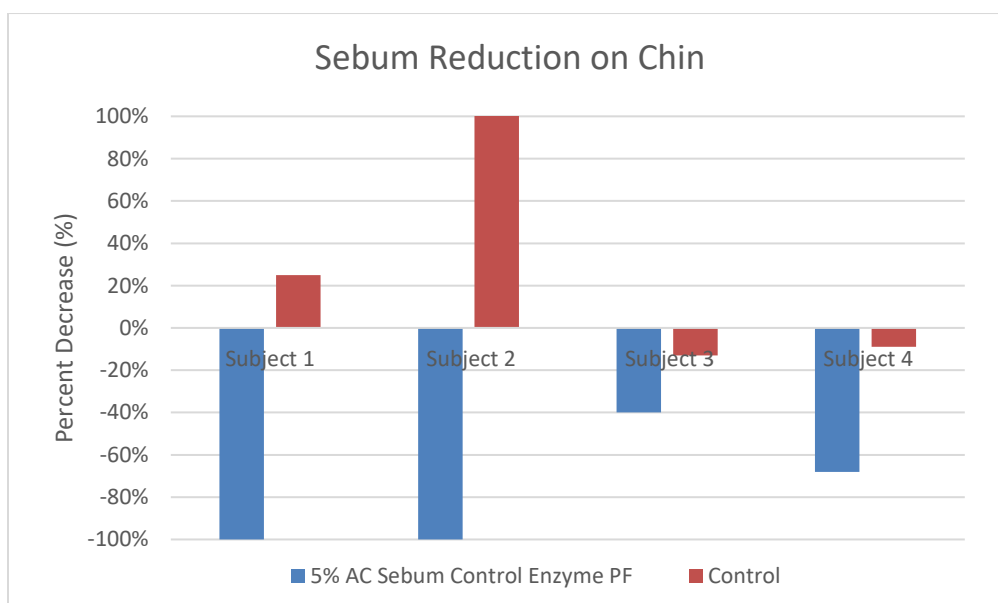


Figure 3. Percent Reduction of Sebum per Subject in the Chin Region.



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Discussion

As evidenced in the figures above, **AC Sebum Control Enzyme PF** was effective at decreasing sebum for all participants. For example, subjects 1 and 2 experienced a 100% decrease in sebum after 6 hours on the chin where subject 4 had a 68% decrease in the same area. Subject 3 experienced a 40% decrease in the chin area. **AC Sebum Control Enzyme PF** can be used as a means to mattify without dehydrating the skin to offer a smooth, sebum free all day complexion.

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