

# Salon Half-Head Hair Study



Starch  
 Powerful Ferment  
 Natural Carbohydrate  
 Simple Sugars  
 Enhanced Bioavailability

## ABSTRACT

The condition of the cuticle (the outer most layer of the hair) significantly affects both the manageability and sleekness of our hair. Over time, hair can become damaged, which can result in the cuticle lifting because of both environmental and styling influences and processes. The result: lifeless, dull hair that is difficult to manage. Improving the sleekness of hair has been shown to instantly create a healthier more youthful appearance. Increasing combability not only eases manageability, but also helps to minimize physical damage that perpetuates the loss of body and difficulty in styling.

**ACB Botanical Sugar Complex** is a product designed to provide excellent smoothing and shining properties while also improving moisturization. However, this unique ingredient also can be used for smoothing, improving wet and dry combability, anti-frizz, overall feel, shine and hydration when used in hair care products. The purpose of this study was to confirm whether **ACB Botanical Sugar Complex** is capable of providing benefits when included in a shampoo and pre-blow dry spray used on ethnic hair types.

A half head study was conducted to determine the comparison of a control shampoo vs. 2.0% **ACB Botanical Sugar Complex** in the control shampoo. Additionally, a comparison between the control pre-blow dry spray and 2.0% **ACB Botanical Sugar Complex** in the control pre-blow dry spray were reported. Each volunteer's hair was photographed prior to the treatment and again after the shampoo and pre-blow dry spray had been applied and the hair was styled. The images of the half head study were used in conjunction with a sensory assessment subjectively rating the parameters - cleansing, smoothing, dry and wet combability, anti-frizz, overall feel, shine, hydration, and strengthening. This assessment was conducted both before and after treatment. Based on the results obtained, **ACB Botanical Sugar Complex** is capable of enhancing smoothing, wet and dry combability, anti-frizz, overall feel, shine and hydration of the hair. These attributes makes it an ideal ingredient for use in products intended for any hair types.

**Code Number: 20039**

**INCI Name:** Tapioca Starch & Lactobacillus Ferment Lysate

**INCI Status:** Conforms

**REACH Status:** Complies

**CAS Number:** 9005-25-8 & 68333-16-4

**EINCS Number:** 232-679-6 & N/A

**TRF#:** S11

**Lot Number(s):**

NC150323-B, NC150407-F

**Suggested Use Levels:** 2.0 - 5.0%

**Use Level for Assay:** 2.0%

### Sponsor:

Active Concepts, LLC  
 107 Technology Drive  
 Lincolnton, North Carolina 28092

**Study Director:** Erica Segura

**Principle Investigator:**  
 Maureen Danaher

### Suggested Applications:

Smoothing, Increases Shine, Scalp Care

### Benefits of ACB Botanical Sugar Complex:

- Smoothing
- Moisturization
- Increases Shine
- Scalp Care

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## MATERIALS AND METHODS

The study was conducted using five participants. Each subject had their baseline photo taken prior to having their hair washed. The participant was also asked to complete a survey rating their hair prior to treatment on a scale of 1 to 10, with 1 being the lowest and 10 being the highest, using the following parameters cleansing, smoothing, dry and wet combability, anti-frizz, overall feel, shine, hydration, and strengthening.

Half of the head was treated with the control shampoo and pre-blow dry spray while the other half of the head was treated with 2.0% **ACB Botanical Sugar Complex** in the base shampoo and base pre-blow dry spray. After the application and rinse of the test and positive control products, each participant's hair was blown dry using a round brush on both sides of the head. Once the hair was completely dry, the participant was asked to again assess the same parameters of both halves of their hair. Assessments were made using a rubric from 1 to 10, with 1 being the lowest and 10 being the highest.

## RESULTS

Parameters Tested	Assessment of the Control Shampoo	Assessment of the Experimental (2.0% ACB Botanical Sugar Complex in Control Shampoo)	Assessment of the Control Pre-Blow Dry Spray	Assessment of the Experimental (2.0% ACB Botanical Sugar Complex in Control Pre-Blow Dry Spray)
Cleansing	5.80	7.20	X	X
Smoothing	5.80	8.00	5.80	6.80
Wet Combability	5.40	7.80	6.00	6.80
Dry Combability	X	X	5.40	6.40
Anti-Frizz	X	X	5.80	7.00
Overall Feel	X	X	6.00	7.20
Shine	X	X	6.00	7.40
Hydration	X	X	5.80	7.00
Strengthening	X	X	4.40	5.40
Mean	5.66	7.66	5.65	6.75

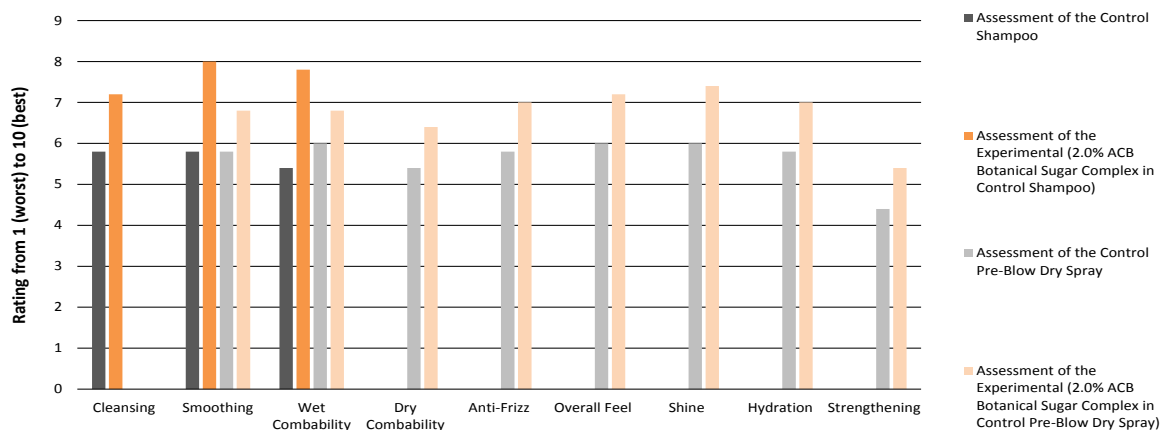
Chart 1. Average Results for Participant's Sensory Assessment

Parameters Tested	Percent Difference – Comparison of Control Shampoo vs. Experimental (2.0% ACB Botanical Sugar Complex in Control Shampoo)	Percent Difference – Comparison of Control Pre-Blow Dry Spray vs. Experimental (2.0% ACB Botanical Sugar Complex in Control Pre-Blow Dry Spray)
Cleansing	15%	X
Smoothing	29%	15%
Wet Combability	46%	15%
Dry Combability	X	18%
Anti-Frizz	X	15%
Overall Feel	X	15%
Shine	X	15%
Hydration	X	15%
Strengthening	X	0%
Mean	30%	13.5%

Chart 2. Percent Difference of Participant's Sensory Assessment

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## Assessment of Hair Characteristics



Graph 1. Rating of hair characteristics following sensory assessment



Figure 1. Full head Baseline, Untreated Hair

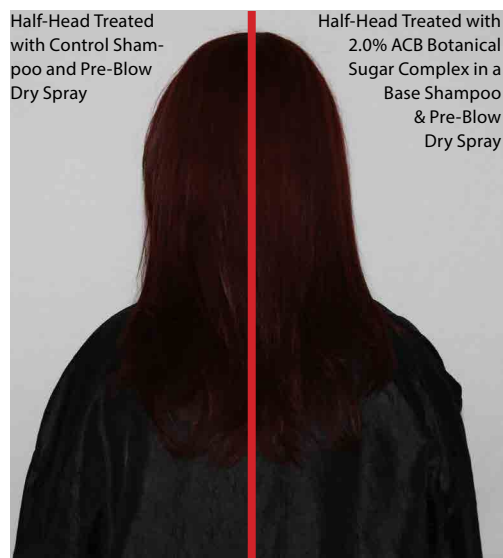


Figure 2. Half-Head Treated



Figure 3. Full head Baseline, Untreated Hair

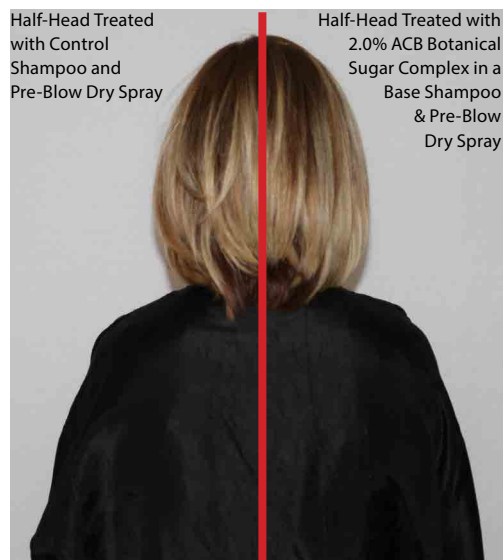


Figure 4. Half-Head Treated

# Salon Half-Head Hair Study



Figure 5. Full head Baseline, Untreated Hair



Figure 6. Half-Head Treated



Figure 7. Full head Baseline, Untreated Hair

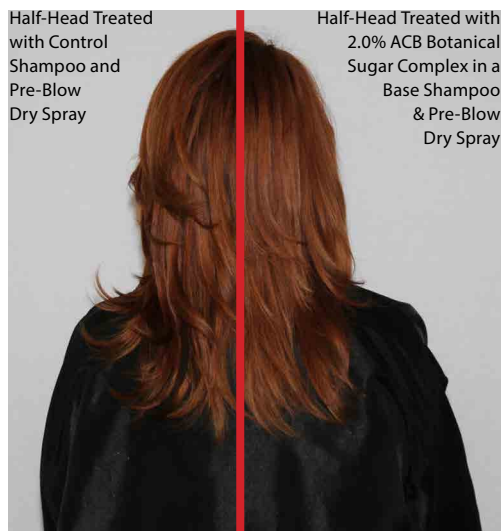


Figure 8. Half-Head Treated



Figure 9. Full head Baseline, Untreated Hair

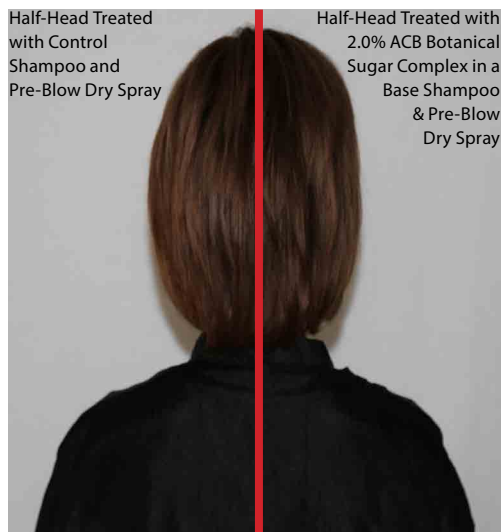


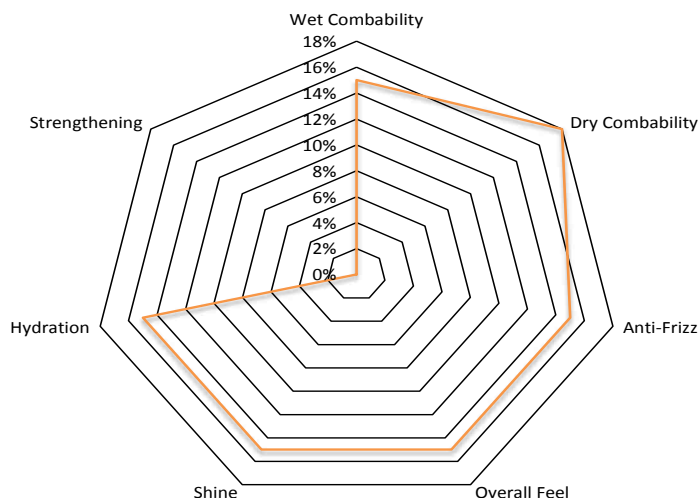
Figure 10. Half-Head Treated

# Salon Half-Head Hair Study

In relation to the baseline readings, the test-half of the head improved smoothing, wet and dry comability, anti-frizz, overall feel, shine and hydration by 15%, 15%, 18%, 15%, 15%, 15% and 15%, respectively. It is clear from the images in this study that **ACB Botanical Sugar Complex** helps create a smooth hairstyle. Additionally, in all images, the hair is noticeably shinier and has a healthier appearance.

The professional stylist who performed the actual tests by applying the product, styling the hair and documenting the images said **ACB Botanical Sugar Complex** is great for over processed and coarse hair to provide a smooth, improved overall feel of the hair. As you can see from the pictures, the product did enhance the appearance of styled hair. Perfect for use in products to smooth and increase shine of the hair while also nourishing the scalp.

## Comparison of Control Conditioner vs. Experimental



Graph 2. Hair Assessment results for sensory characteristics

## DISCUSSION

The results of the assessment indicate that when used in a pre-blow dry spray **ACB Botanical Sugar Complex** is capable of improving smoothing more than the control pre-blow dry spray. These results can be further supported by figures 1 through 10, where clearly the half of the subject's head treated with 2.0% **ACB Botanical Sugar Complex** appears healthy, shiny and smooth. Additionally, the subjects reported a significant increase in smoothness and overall feel of the hair.