

Salon Half-Head Hair Study



natural botanically-derived
ideal for skin+ hair care applications

Smoother + Brighter Complexion
Exfoliating, Moisturizing
Alpha Hydroxy Acids

ABSTRACT

The condition of the cuticle (the outer most layer of the hair) significantly affects both the manageability and sleekness of our hair. Overtime, hair can become damaged, which can result in the cuticle lifting as a consequence 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 Fruit Mix is a product designed to provide the benefits associated with natural alpha hydroxy acids, such as gentle exfoliation, brightening, moisturization and aiding with problem skin. However, this unique ingredient also enhances smoothing, wet and dry combability, anti-frizz, overall feel, shine and hydration when used in hair care applications. The purpose of this study was to confirm whether or not **ACB Fruit Mix** is capable of providing benefits when included in a shampoo and conditioner on all hair types.

A half head study was conducted to determine the comparison of a control shampoo vs. 2.0% **ACB Fruit Mix** in the control shampoo. Additionally, a comparison between the control conditioner and 2.0% **ACB Fruit Mix** in the control conditioner were reported. Each volunteer's hair was photographed prior to the treatment and again after the shampoo and conditioner 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 and hydration. This assessment was conducted both before and after treatment. Based on the results obtained, **ACB Fruit Mix** is capable of enhancing smoothing, wet and dry combability, anti-frizz, overall feel, shine and hydration making it ideal for all hair types.

Code Number: 20343LNZ

INCI Name: Water & Vaccinium Myrtillus Fruit Extract & Saccharum Officinarum (Sugar Cane) Extract & Citrus Aurantium Dulcis (Orange) Fruit Extract & Citrus Limon (Lemon) Fruit Extract & Acer Saccharum (Sugar Maple) Extract

INCI Status: Conforms

REACH Status: Complies

CAS Number: 7732-18-5 & 84082-34-8 & 91722-22-4 & 8028-48-6 & 84929-31-7 & 91770-22-8

EINECS Number: 231-791-2 & 281-983-5 & 294-424-5 & 232-433-8 & 284-515-8 & 294-807-7

TRF#: 2873

Lot Number(s):

#NC150410-N, #NC150410-O

Suggested Use Levels: 1.0 - 10.0%
Use Level for Assay: 2.0%

Sponsor:

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

Study Director: Maureen Danaher
Principle Investigator: Jennifer Goodman

Suggested Applications: Exfoliation, Problem Skin, Enhance Cellular Renewal

Benefits of **ACB Fruit Mix**:

- Moisturizing
- Excellent for Problem Skin
- Increases Rate of Cellular Renewal
- Minimizes the Appearance of Fine Lines

Salon Half-Head Hair Study

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 and hydration.

Half of the head was treated with the control shampoo and conditioner while the other half of the head was treated with 2.0% **ACB Fruit Mix** in the base shampoo and base conditioner. 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 Fruit Mix in Control Shampoo)	Assessment of the Control Conditioner	Assessment of the Experimental (2.0% ACB Fruit Mix in Control Conditioner)
Cleansing	8.00	8.00	X	X
Smoothing	7.00	7.00	7.00	8.00
Wet Combability	7.00	7.00	6.00	8.00
Dry Combability	X	X	5.00	8.00
Anti-Frizz	X	X	5.00	9.00
Overall Feel	X	X	5.00	9.00
Shine	X	X	5.00	9.00
Hydration	X	X	5.00	9.00
Mean	7.33	7.33	5.43	8.57

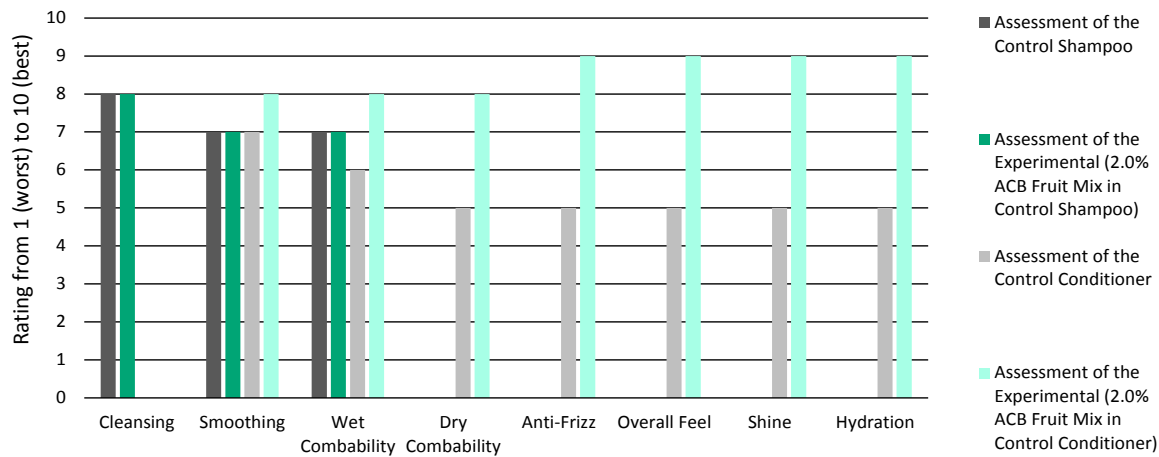
Chart 1. Average Results for Participant's Sensory Assessment

Parameters Tested	Percent Difference – Comparison of Control Shampoo vs. Experimental (2.0% ACB Fruit Mix in Control Shampoo)	Percent Difference – Comparison of Control Conditioner vs. Experimental (2.0% ACB Fruit Mix in Control Conditioner)
Cleansing	0%	X
Smoothing	0%	13%
Wet Combability	0%	29%
Dry Combability	X	46%
Anti-Frizz	X	57%
Overall Feel	X	57%
Shine	X	57%
Hydration	X	57%
Mean	0%	45%

Chart 2. Percent Difference of Participant's Sensory Assessment

Salon Half-Head Hair Study

Assessment of Hair Characteristics



Graph 1. Rating of hair characteristics following sensory assessment



Figure 1. Full head Baseline, Untreated Hair

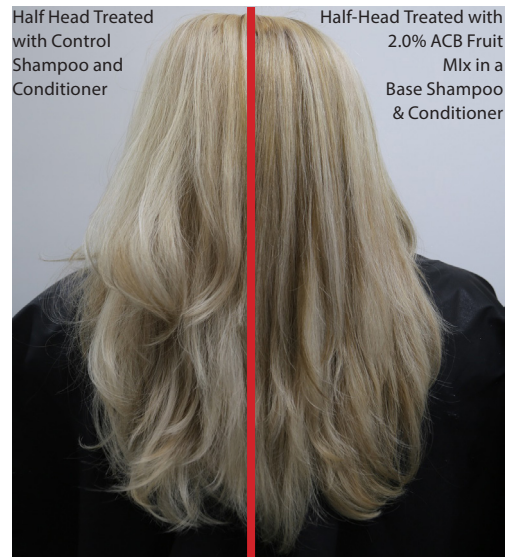


Figure 2. Half Head Treated



Figure 3. Full head Baseline, Untreated Hair

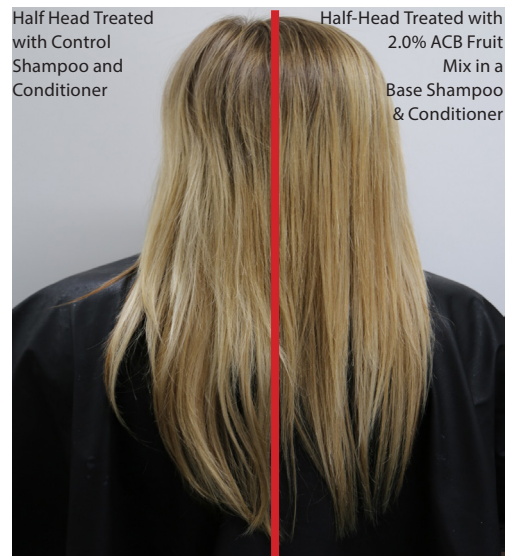


Figure 4. Half Head Treated

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

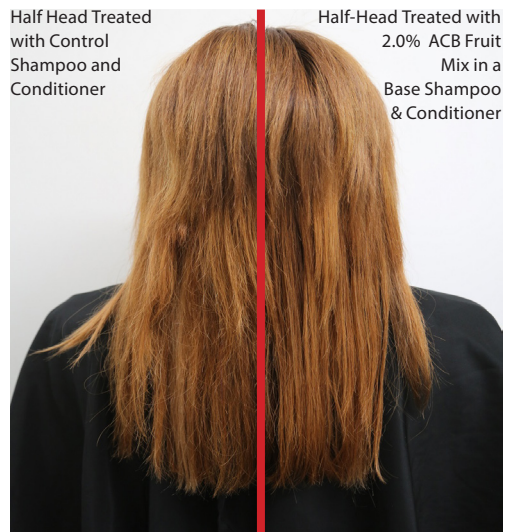


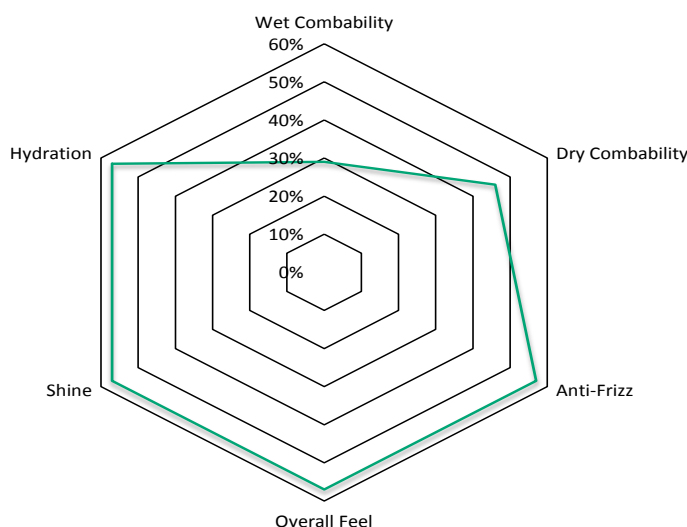
Figure 10. Half Head Treated

Salon Half-Head Hair Study

When comparing hair characteristics of the baseline assessments to the post style assessments, the benefits of including 2.0% **ACB Fruit Mix** in a conditioner are even more apparent. In relation to the baseline readings, the test-half of the head improved the intended subjective parameters, improving smoothing, wet and dry combability, anti-frizz, overall feel, shine and hydration by 13%, 29%, 46%, 57%, 57%, 57% and 57%, respectively. It is clear from the images in this study that **ACB Fruit Mix** helps create a smooth, sleek hair style. Additionally, in all images, the hair is noticeably shinier and has a smooth appearance.

The professional stylist who performed the actual tests by applying the product, styling the hair and documenting the images said **ACB Fruit Mix** is great for smoothing damaged hair. This product enhances the shine and feel of styled hair. **ACB Fruit Mix** is good to use in a leave on application or shampoo and conditioner for perceivable benefits. Great for taming frizz and obtaining a sleek, straight style. Works good with heat treatments, such as a blow dryer or straightener, to smooth ends of the hair.

Comparison of Control Conditioner vs. Experimental



Graph 2. Hair Assessment results for sensory characteristics

DISCUSSION

The results of the assessment indicate that when incorporated into a shampoo, 2.0% **ACB Fruit Mix** did not show improvement in the hair characteristics tested. However, when used in a conditioner **ACB Fruit Mix** is capable of improving smoothing, wet and dry combability, anti-frizz, overall feel, shine and hydration by 13%, 29%, 46%, 57%, 57%, 57% and 57%, respectively, more than the control conditioner. 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 Fruit Mix** appears shiny and smooth. Additionally, the subjects reported a significant increase in smoothness and conditioning of dry hair.