



M O N A T

TREATMENT SYSTEMS
CLINICAL STUDIES

SIMPLE VERSION

MONAT TREATMENT SYSTEMS CLINICAL STUDIES

These independent clinical studies were conducted at top manufacturing and research centers. Examiners within the facilities look to gain knowledge and understanding of the principles of hair and hair product interactions.

No serious adverse side effects were reported from the treatments; instead, the clinical studies show that MONAT ingredient users experienced the following benefits:

- ⊙ Significant hair growth with an average increase in hair count per sq. in.
- ⊙ Decrease of the thinning process.
- ⊙ Increased density and fullness.
- ⊙ Substantial decrease in hair fallout.
- ⊙ Increased rate of hair growth.
- ⊙ More manageability of the hair.
- ⊙ Overall better shine and condition of hair.

MONAT TREATMENT SYSTEMS INGREDIENTS

Studies were scheduled and held independently utilizing one active ingredient per study. These ingredients included:

CAPIXYL



CRODASORB



PROCATALINE





Objective

The goal of the study was to evaluate a solution containing CAPIXYL.

The volunteers were chosen under several conditions, including less than 70% hairs in the growing phase.

Volunteer Protocol

- Volunteers suffering from hair loss (average age 30-46).
- Volunteers were clinically evaluated & individual case histories were recorded in order to rule out possible abnormalities due to outside influences affecting ideal results.
- Products were applied in the evening and distributed on the testing area during 4 consecutive months.
- Every week, volunteers were given a plastic bag, where they had to collect all the hairs on their pillows, combs and clothes on a daily basis; they had to bring the bag to the laboratory for hairs to be counted.

Results

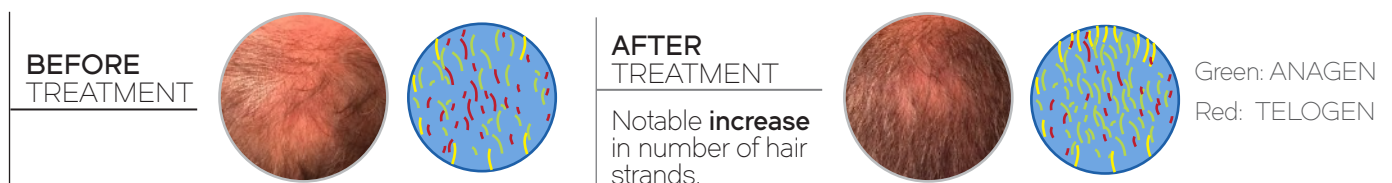
Determination of growing hair count

The TrichoScan software defines growing hair based on the knowledge that hair grows at approximately 0.3 mm/day whereas non-growing hairs do not grow consistently.

During successful testing, the growing hair count should increase and therefore this approach can be used to monitor a true response.

- ✓ 46% increase in growing hair density.
- ✓ 70% increase in repair effect improving hair anchoring.
- ✓ 48% decrease in DHT hormone that contributes to hair loss.
- ✓ Strong reduction in non-growing hair density.

Determination of non-growing hair count



CAPIXYL

Irritation & Sensitization Patch Test

Objective

This test was done to determine the absence of irritation and sensitivity tendencies following repeated skin applications of a solution containing the ingredient CAPIXYL™ with a patch test.

This test is widely recognized to evaluate skin sensitivity and allergenic reactions.

Study Significance

Skin allergy is an occurrence of immune origin that transpires according to three phases:

- ✓ Close contact of a foreign allergenic substance with the skin.
- ✓ Sensitivity of the immune system following this first contact.
- ✓ Activation of immune reactions following a second exposure of the skin to the allergen.

All 3 steps are required to document the allergenic potential of a given substance.

Protocol

Test Group:

Number of subjects: 112 volunteers, women and men, 18 to 84 years old.

Test application:

- Areas: on the back of each subject.
- Frequency and duration:
 - Induction period: 3 weeks
 - Rest period: 1 week
 - Challenge phase: 1 week

⊖ The result of examination is negative if the skin looks normal.

Results

Initial test

No responses were noted on any of the 112 subjects who underwent at least one post-application examination.

The absence of responses characterizes the product as one which is devoid of clinically significant skin-irritating tendencies.

Conclusion

No significant dermal reactions were exhibited during either the induction phase or challenge phase of the study.



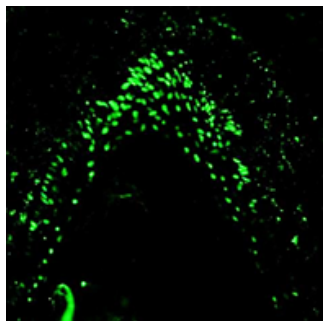
Objective

The goal of the study was to evaluate a solution containing PROCATALINE.

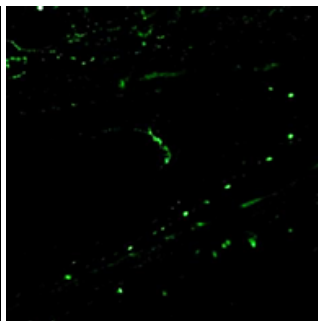
Methodology

Efficacy tests performed Ex vivo (on human) evaluation.

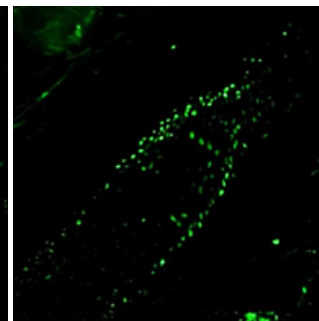
- △ PROCATALINE biofunctional helps maintain P63 expression in hair follicle under UV stress, ex vivo.



Control (without UV)



UV Control



PROCATALINE biofunctional 1%
+ UV

Procataline biofunctional treatment before UV exposure significantly maintained P63 expression. This helps to create a favorable environment to promote hair growth.

- ① PROCATALINE biofunctional helps maintain high level of antioxidants, ex vivo.

PROCATALINE biofunctional helped boost the expression of enzymes. Hair follicle appears better preserved when exposed to UV irradiation.

PROCATALINE biofunctional helps limit cell death in hair follicle, ex vivo.

Results

As shown by ex vivo studies, PROCATALINE biofunctional treatment before UV exposure may help to:

- Increase hair follicle strength by 35%.
- Increase collagen by 76%, directly increasing follicle size.
- Create an environment favorable to hair renewal and growth.
- Preserve hair follicle and structure from H₂O₂ damage.
- Preserve melanin in hair follicle under oxidative stress.

PROCATALINE

Irritation & Sensitization Patch Test

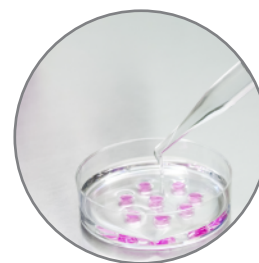
Objective

This test was done to determine the absence of irritation and sensitivity tendencies following repeated skin applications of a solution containing the ingredient PROCATALINE.

This test is widely recognized to evaluate skin sensitivity and allergenic reactions.

Dermal Irritation

PROCATALINE, tested as supplied, was non -irritant to the skin, based on the in vitro Skin Irritation Test (SIT).
Using the Epiderm™ Skin Model.



Results

Repeated Insult Patch Test (RIPT)

In an RIPT completed by 214 human subjects, PROCATALINE demonstrated no potential for dermal irritation or allergic contact sensitization.

Conclusion

No significant dermal reactions were exhibited during either the induction phase or challenge phase of the study.



Objective

The goal of the study was to evaluate the effect of UV Radiation on hair with CRODASORB. CRODASORB UV-283 has been shown to preserve the natural color of the hair. The fact that brown tresses do not lighten in color indicates that CRODASORB UV-283 prevents UV-B radiation from degrading melanin, the pigment that gives hair its color.

Methodology

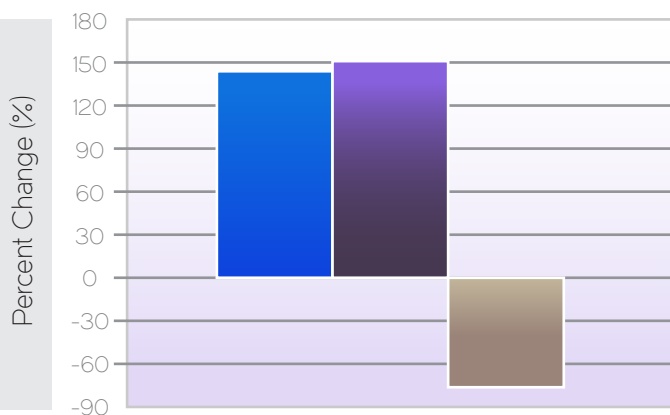
Combing Studies

The combing study consisted of two parts, an independently run exposure phase and an in-house testing phase. During the exposure phase, treated and untreated tresses of virgin and bleached hair underwent 29 days of UV-A/UV-B exposure at 375.8 Joules/day.

① CRODASORB UV-283 Reduces Combing Work After UV Exposure.

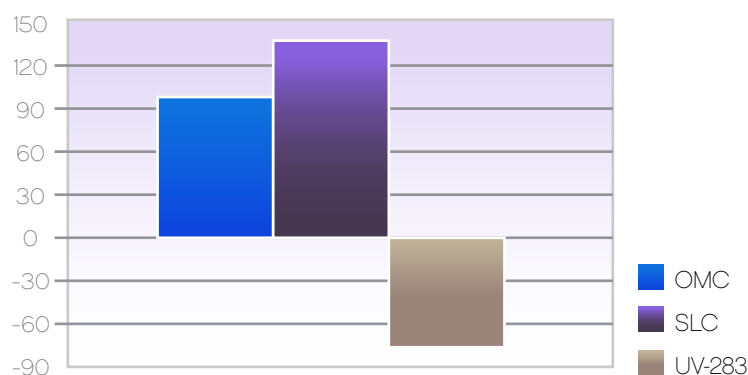
These dramatic improvements in wet combing indicate that CRODASORB UV-283 has not only prevented damage to the cuticle, but has also provided conditioning benefits.

Wet Combing Force - Peak Load.



- The much lower peak load for the UV 283 grey hair tress means CRODASORB UV-283 has made the hair easier to detangle.

Wet Combing Force - Total Work.



- The large reduction in total work for the UV 283 grey hair tress means CRODASORB UV-283 has made the hair easier to comb.

Results

Laboratory results indicate that CRODASORB UV-283 exhibits significantly higher performance for added manageability and color retention.

- CRODASORB UV-283 helps maintain hair elasticity and reduce brittleness.
- CRODASORB UV-283 protects the structural integrity of gray hair exposed to UV radiation.

CRODASORB

Irritation & Sensitization Patch Test

Objective

HET-CAM Assay was used to assess the acute irritation potential of CRODASORB UV-283.

Results

A material with a mean score between 0.0 and 4.99 has a very low irritation potential.

There were no visible skin reactions on any of the test subjects throughout the testing interval.

Under the conditions of this study, CRODASORB UV-283 10% aqueous solution did not indicate a potential for dermal irritation or allergic contact sensitization.

Conclusion

No significant dermal reactions were exhibited during either the induction phase or challenge phase of the study.



Objective

The goal of the study was to evaluate a solution containing REJUVENIQE with Abyssinian Oil. Many claims are being made to demonstrate the effectiveness of hair care products. These include aspects like hair manageability, protection, strengthening of the hair strands and anti-breaking properties. Furthermore a visible benefit like the enhancement of the natural shine of the hair is important to achieve customer satisfaction.

Volunteer Protocol

The tests were performed on Mulatto and Caucasian hair. Mulatto hair offers a combination of characteristics of different ethnic hair types mixed with African origin. Caucasian hair can be characterized as having straight hair texture which is resistant to damage, but has a duller appearance.

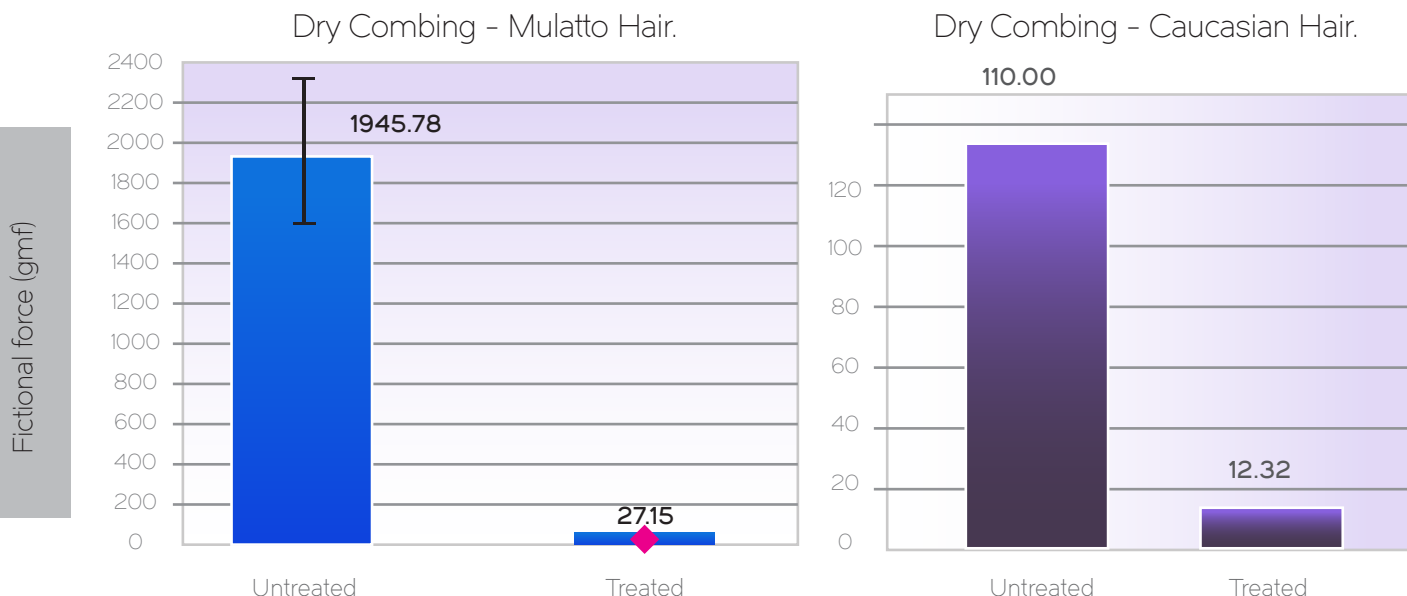
Results

① Dry Combing Test

A repeated grooming test was performed to quantify the shine of the hair.

Based on the results of three different test methods we can claim that REJUVENIQE offers a high benefit in improving the manageability of the hair, enhancing the shine and strengthening the hair strands.

Dry Combing Mulatto and Caucasian Hair.



REJUVENIQE

Quantification of Shine

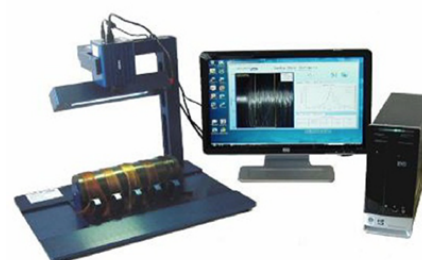
Objective

The shine of the hair is a very highly appreciated attribute of healthy-looking hair and is often a claim of hair care products.

This test is widely recognized to evaluate luster and shine with light reflecting properties.

Protocol

The commercially-available SAMBA device by Bossa Nova was used to quantify the shine enhancement of REJUVENIQE with Abyssinian Oil.



SAMBA device tester

Results

REJUVENIQE with Abyssinian Oil has the ability to increase the shine of Caucasian hair by 88%, which is more than 4.4 fold of the initial shine. Due to these results it can be claimed, that REJUVENIQE with Abyssinian Oil is a natural shine enhancer. It can be used as a natural replacement to synthetic oils like silicones in hair care products where shine and luster is needed.

Conclusion

REJUVENIQE with Abyssinian Oil increases the manageability of the hair, strengthens it and makes it more resistant against external stress like grooming with an anti-breakage effect. Furthermore it is a very effective shine enhancer while being non-greasy. These benefits can be seen on different hair structures like Mulatto and Caucasian Hair.