

BIOGRÜNDL, S.L.
POLÍGONO LES FALLULLES, NAVE 34 -SECTOR 2-
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TECHNICAL DATA SHEET

BIOGRÜNDL ANTIAGE **/ AEC / HGL / CA20 /**



Trade Name: BIOGRÜNDL ANTIAGE / AEC / HGL / CA20 /

Product Code: CEBAAHGLC20.

INCI Name: AQUA, GLYCERIN, GLYCINE SOJA GERM EXTRACT, VICIA FABIA EXTRACT, PISUM SATIVUM EXTRACT, PHASEOLUS VULGARIS GERM EXTRACT, FAEX EXTRACT, POTASSIUM SORBATE, SODIUM BENZOATE.

INCI Status: Conforms.

REACH Status: Low Volume Exemption.

CAS Number: 7732-18-5; 56-81-5; 84776-91-0; 89958-06-5; 90082-41-0; 85085-22-9; 8013-01-2; 24634-61-5/ 590-00-1; 532-32-1.

EC Number: 231-791-2; 200-289-5; 921-078-0; 289-628-6; 290-130-6; 285-354-6; 232-387-9; 246-376-1; 208-534-8.

Origin: GLYCERIN: Vegetable origin.

GLYCINE SOJA GERM EXTRACT, VICIA FABIA EXTRACT, PISUM SATIVUM EXTRACT, PHASEOLUS VULGARIS GERM EXTRACT, FAEX EXTRACT: Vegetable origin.

POTASSIUM SORBATE: Synthetic origin.

SODIUM BENZOATE: Synthetic origin.

Processing: GMO Free. / No Ethoxylation. / No Irradiation. / No Sulphonation. / No BSE/TSE. / No CMR. / No SVHC. / No Nanomaterial. / No DEG. / No DEHP. / No Formaldehyde. / No Phthalates. /

Additives: Preservatives: Potassium Sorbate, Sodium Benzoate. Paraben Free. / Antioxidants: None. / Other additives: None.

Solvents Used: Water and glycerin.

Appearance: Clear or slightly opalescent liquid.

Colour: Characteristic (yellowish to deep brown).

Odour: Characteristic.

Specific gravity: 1,050 - 1,300 g/cm³ (20°C approx.).

Direct pH value: 4,5 – 6,5 (20°C approx.).

Soluble/ Miscible: Water. Surfactants. Hydroalcoholic, hydroglyceric and hydroglycolic mixtures.

Ecological Information: Sustainable.

Microbial Count: Total aerobics: Max. 300 microorganisms / gram.

Fungi and yeasts: Max. 200 microorganisms / gram.

Pathogens: Total absence in 1 gram.

Suggested Use Levels: 2,0 – 10,0%.

Suggested Applications: Phytocosmetic products. Anti-ageing, anti-wrinkle, as well as, senile skin preparations. Against hair-loss treatment.

Properties: Restructuring, strengthener, protective, anti-wrinkle and anti-hair loss.

Industrial packing: 1Kg., 5Kg., 25Kg., 225Kg.

Storage conditions: It is very important to keep the product in well closed containers, away from direct sunlight at temperatures not over 15°C. In case of not having refrigerators, store the product in the coolest and free from artificial light area.

Bibliography: - Atlas Ilustrado de Plantas Medicinales y Curativas, Ed. Susaeta.

- Dumont's grosse Kräuter Enzyklopädie.

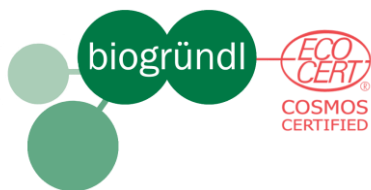
- Fitocosméticos ALVAREZ CRUZ i BAGUE SERRANO.

- Gran enciclopedia de las plantas medicinales, BERDONCES i SERRA.

- Plantas medicinales, FONT i QUER.

- Proserpio G., Martelli A., Patri GF.; Elementi di Fitocosmeci; Ed. Sepem / Milano 1983.

- Websites.



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OVERVIEW

BIOGRÜNDL ANTIAGE by BIOGRÜNDL, S.L. contains five active components:

- Soya germ extract. Soya (Glycine soja) is an annual plant belonging to the Legume family, upright stem with trimer leaves, white or violet flowers, its fruit is a pod that contains seeds or beans.
- Bean and green bean extracts, extraordinarily rich in proteins, similar composition to collagen and elastin; and antiproteases, these are enzymes that delay the destruction of proteins.
- Pea extract. Pea (Pisum sativum) is an annual herbaceous plant belonging to the legume family. Its seed is rich in proteins, carbohydrates, minerals (P, Mg, Ca, Fe, Zn, K, Na) and vitamins (A, B group, C and E).
- Brewer's yeast extract. Brewer's yeast (*Saccharomyces cerevisiae*) is the microorganism that ferments the starch from barley during the beer production process. Once this process is completed, yeast is separated from beer by filtration and subsequent washing, drying and grinding. A brownish-yellow powder with a very characteristic odour is obtained.

USE AND DOSAGE

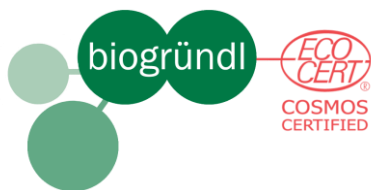
The incorporation in cosmetics of BIOGRÜNDL ANTIAGE by BIOGRÜNDL, S.L. is justified by its restructuring, strengthener, protective, anti-wrinkle and anti-hair loss properties.

BIOGRÜNDL ANTIAGE by BIOGRÜNDL, S.L. is indicated in anti-ageing, anti-wrinkle, as well as, in senile skin preparations. It is very useful, also, against hair-loss treatment.

As its name indicates, BIOGRÜNDL ANTIAGE by BIOGRÜNDL, S.L. only contains active ingredients from vegetable origin, so its use is preferred in phytocosmetic.

If turbidity is observed, it is advisable to previously dissolve the product in a portion of the water provided to manufacture the final product and filter after 12-24 hours.

The recommended concentrations of use are between 2% and 10%. For very special effects the dosage can raise up to 15%.



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PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear or slightly opalescent liquid.

Colour: Characteristic (yellowish to deep brown).

Odour: Characteristic.

Direct pH value: 4,5 – 6,5 (20°C approx.).

Specific gravity: 1,050 - 1,300 g/cm³ (20°C approx.).

Solubility in water: Fully soluble (20°C approx.).

Solubility in other solvents: Insoluble in organic solvents and lipids. Soluble in surfactants, hydroalcoholic, hydroglyceric and hydroglycolic mixtures.

Heavy metals: No more than 5 mg/Kg.

Sulfated ash: No more than 0,01%.

Chlorides: No more than 0,007%.

Sulfates: No more than 0,002%.

Other information: None.

Total aerobics: Max. 300 microorganisms / gram.

Fungi and yeasts: Max. 200 microorganisms / gram.

Pathogens: Total absence in 1 gram.

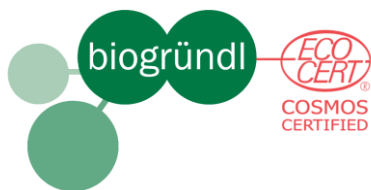
DERMATOLOGY INNOCUOUSNESS

It was performed by the patch test (Patch test) on 10 volunteers. To this purpose, 15% BIOGRÜNDL ANTIAGE by BIOGRÜNDL, S.L., was added to an O/W emulsion; 0,5g. of this emulsion was poured over the patch and attached on the forearm. It is thus maintained for 24, 48 and 72 hours, after which, the given reaction was evaluated, according to the following table of values:

1. No erythema.
2. Slight erythema.
3. Well defined erythema.
4. Severe erythema.

The result was absence of erythema on the 10 volunteers.

On the recommended concentrations, the product is skin innocuous.



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STORAGE CONDITIONS

It is very important to keep the product in well closed containers, away from direct sunlight at temperatures not over 15°C. In case of not having refrigerators, store the product in the coolest and free from artificial light area.

INCI DENOMINATION

AQUA, GLYCERIN, GLYCINE SOJA GERM EXTRACT, VICIA FABA EXTRACT, PISUM SATIVUM EXTRACT, PHASEOLUS VULGARIS GERM EXTRACT, FAEX EXTRACT, POTASSIUM SORBATE, SODIUM BENZOATE.

EFFECTIVENESS TESTS

Assay: Double blind spot trial and subsequent cosmetic evaluation.

Assayed parameters: Protective action. Anti-wrinkle action. Anti-hair loss action.

N (volunteers): 30 (17 ♀ and 13 ♂).

Age (volunteers): 21 – 69 years old.

Left side part to be treated:

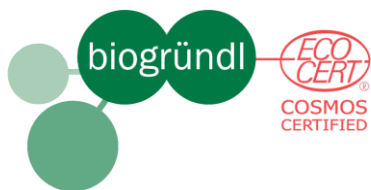
Placebo, 30 volunteers, suitable cosmetic base.

Right side part to be treated:

BIOGRÜNDL ANTIAGE 2%, 15 volunteers, suitable cosmetic base.

Right side part to be treated:

BIOGRÜNDL ANTIAGE 5%, 15 volunteers, suitable cosmetic base.



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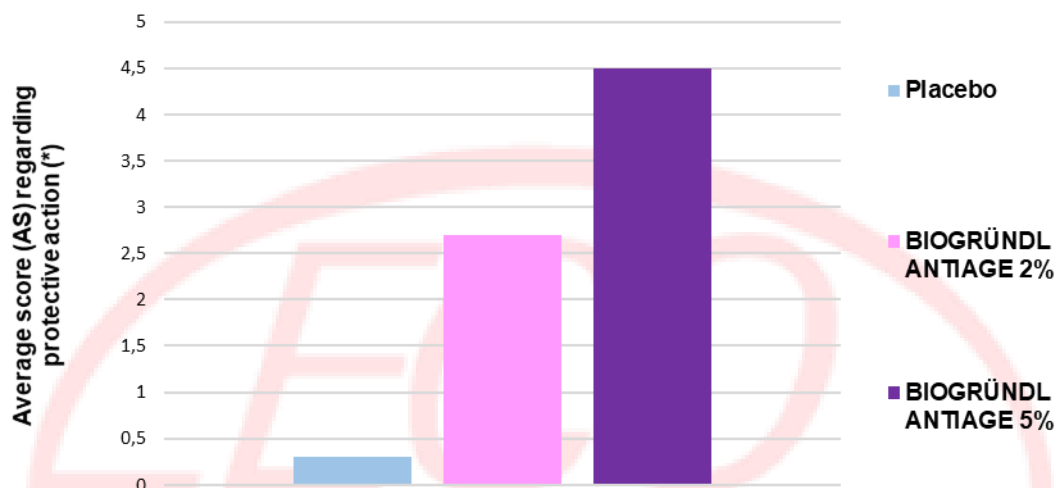
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Assayed parameters:

| | Assay | N (volunteers) | Age (volunteers) | Placebo | BIOGRÜNDL ANTIAGE 2% | BIOGRÜNDL ANTIAGE 5% | Assay performed (Days) | Results measured (Days) |
|------------------------------|---|-------------------------|------------------|----------------|-----------------------------------|------------------------------------|------------------------|-------------------------|
| Protective action | Double blind spot trial and subsequent cosmetic evaluation. | N = 30 17 ♀ and 13 ♂ | 21 – 69 | Left side part | Right side part 15 volunteers. | Right side part. 15 volunteers. | D = 30 | D' = 1 |
| Anti-wrinkle action | Double blind spot trial and subsequent cosmetic evaluation. | N = 30 17 ♀ and 13 ♂ | 30 – 69 | Left side part | Right side part 15 volunteers. | Right side part. 15 volunteers. | D = 30 | D' = 1 |
| Anti-hair loss action | Double blind spot trial and subsequent cosmetic evaluation. | N = 30 17 ♀ and 13 ♂ | 21 – 69 | Left side part | Right side part 15 volunteers. | Right side part. 15 volunteers. | D = 10 | D' = 1 |

TECHNICAL DATA SHEET

SKIN CONDITION EVALUATION AFTER 30 DAYS



(*) Protective action was evaluated by direct observation of protection to damage produced in skin volunteers (unfavorable environment).

Total number of days in which the assay was performed (treatment was applied):
 D = 30 days (every day during the effectiveness test).

Total number of days in which the results were measured:
 D' = 1 day (effectiveness test last day).

Average score:

Worst result: Zero limit value is assigned.

Best result: Five limit value is assigned.

Score is assigned to obtained results between the two limit values.

Average computation for each obtained results group is done:

Placebo, 2% BIOGRÜNDL ANTIAGE by BIOGRÜNDL, S.L., 5% BIOGRÜNDL ANTIAGE by BIOGRÜNDL, S.L..

Results meaning:

AS rank between 0 – 1: No significant changes.

AS rank between 1 – 2: Slight improvement regarding placebo.

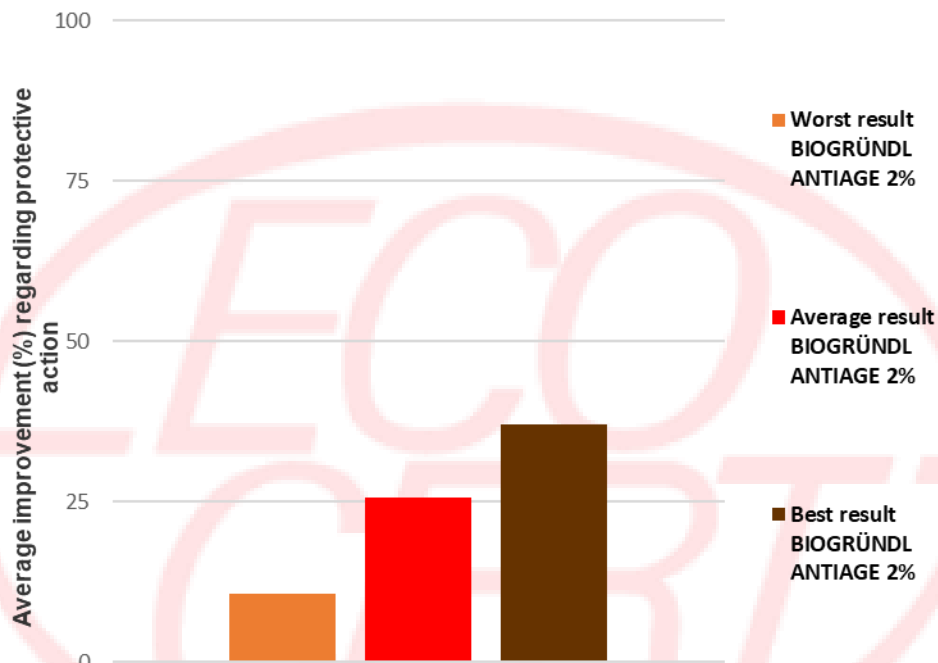
AS rank between 2 – 3: Appreciable improvement regarding placebo.

AS rank between 3 – 4: Great improvement regarding placebo.

AS rank between 4 – 5: Excellent cosmetic result.

TECHNICAL DATA SHEET

BIOGRÜNDL ANTIAGE 2%



Results:

Worst result BIOGRÜNDL ANTIAGE 2%: 10,5%.

Average result BIOGRÜNDL ANTIAGE2%: 25,5%.

Best result BIOGRÜNDL ANTIAGE 2%: 37%.

Results meaning:

AI rank between < 20%: No significant changes.

AI rank between 21 – 40%: Slight improvement regarding placebo.

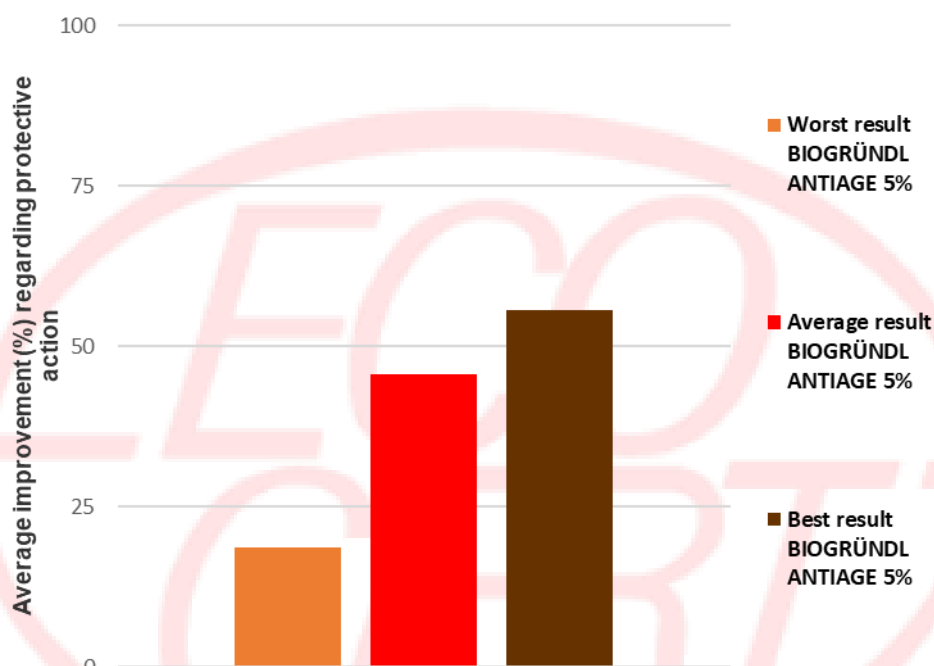
AI rank between 41 – 60%: Appreciable improvement regarding placebo.

AI rank between 61 – 80%: Great improvement regarding placebo.

AI rank between > 81%: Excellent cosmetic result.

TECHNICAL DATA SHEET

BIOGRÜNDL ANTIAGE 5%



Results:

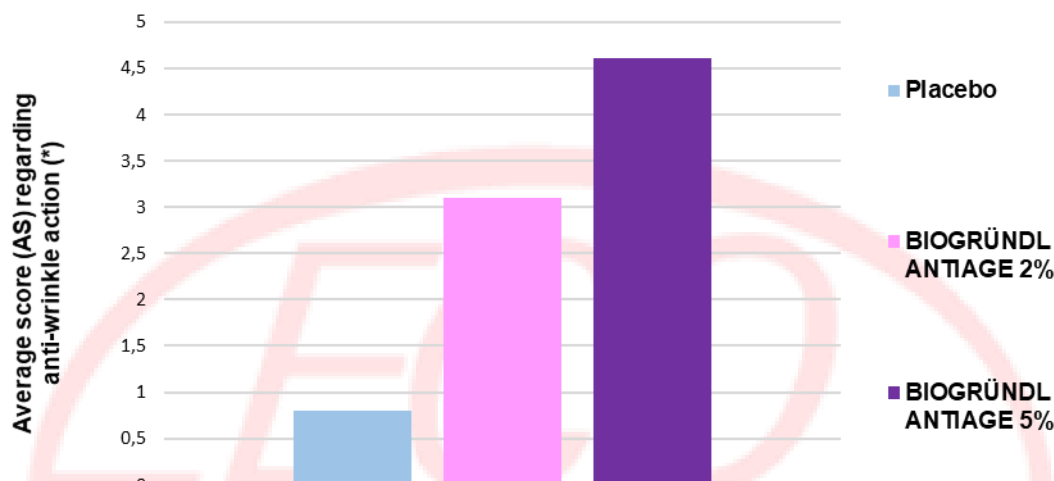
Worst result BIOGRÜNDL ANTIAGE 5%: **17,5%**.
Average result BIOGRÜNDL ANTIAGE 5%: **38%**.
Best result BIOGRÜNDL ANTIAGE 5%: **49%**.

Results meaning:

AI rank between < 20%: No significant changes.
AI rank between 21 – 40%: Slight improvement regarding placebo.
AI rank between 41 – 60%: Appreciable improvement regarding placebo.
AI rank between 61 – 80%: Great improvement regarding placebo.
AI rank between > 81%: Excellent cosmetic result.

TECHNICAL DATA SHEET

SKIN CONDITION EVALUATION AFTER 30 DAYS



(*) Anti-wrinkle action was determined by microscopic observation of depth and length of furrows, wrinkles and expression lines from volunteers.

Total number of days in which the assay was performed (treatment was applied):
 D = 30 days (every day during the effectiveness test).

Total number of days in which the results were measured:
 D' = 1 day (effectiveness test last day).

Average score:

Worst result: Zero limit value is assigned.

Best result: Five limit value is assigned.

Score is assigned to obtained results between the two limit values.

Average computation for each obtained results group is done:

Placebo, 2% BIOGRÜNDL ANTIAGE by BIOGRÜNDL, S.L., 5% BIOGRÜNDL ANTIAGE by BIOGRÜNDL, S.L..

Results meaning:

AS rank between 0 – 1: No significant changes.

AS rank between 1 – 2: Slight improvement regarding placebo.

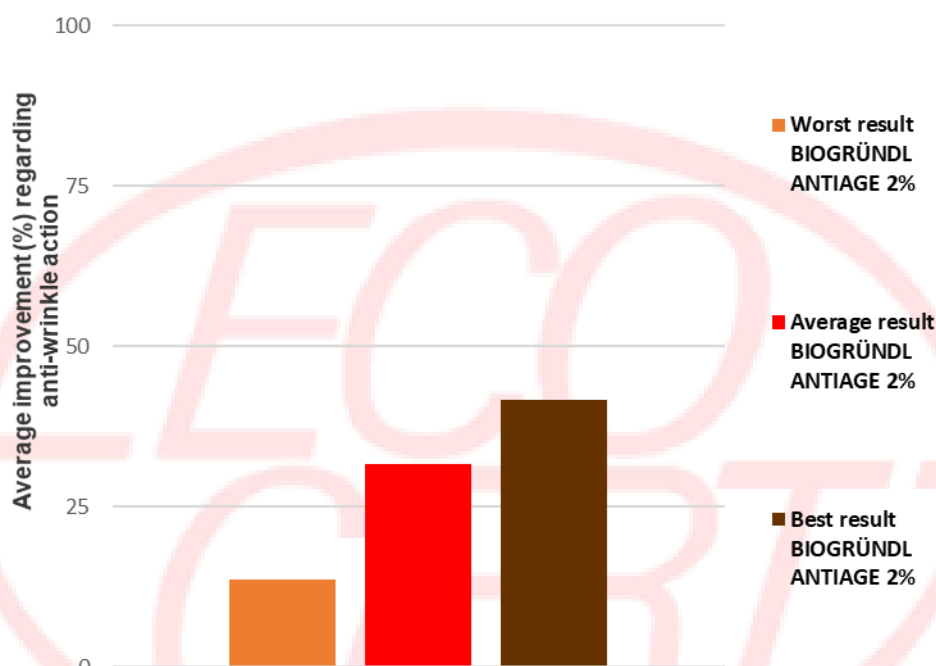
AS rank between 2 – 3: Appreciable improvement regarding placebo.

AS rank between 3 – 4: Great improvement regarding placebo.

AS rank between 4 – 5: Excellent cosmetic result.

TECHNICAL DATA SHEET

BIOGRÜNDL ANTIAGE 2%



Results:

Worst result BIOGRÜNDL ANTIAGE 2%: 13,5%.

Average result BIOGRÜNDL ANTIAGE 2%: 31,5%.

Best result BIOGRÜNDL ANTIAGE 2%: 41,5%.

Results meaning:

AI rank between < 20%: No significant changes.

AI rank between 21 – 40%: Slight improvement regarding placebo.

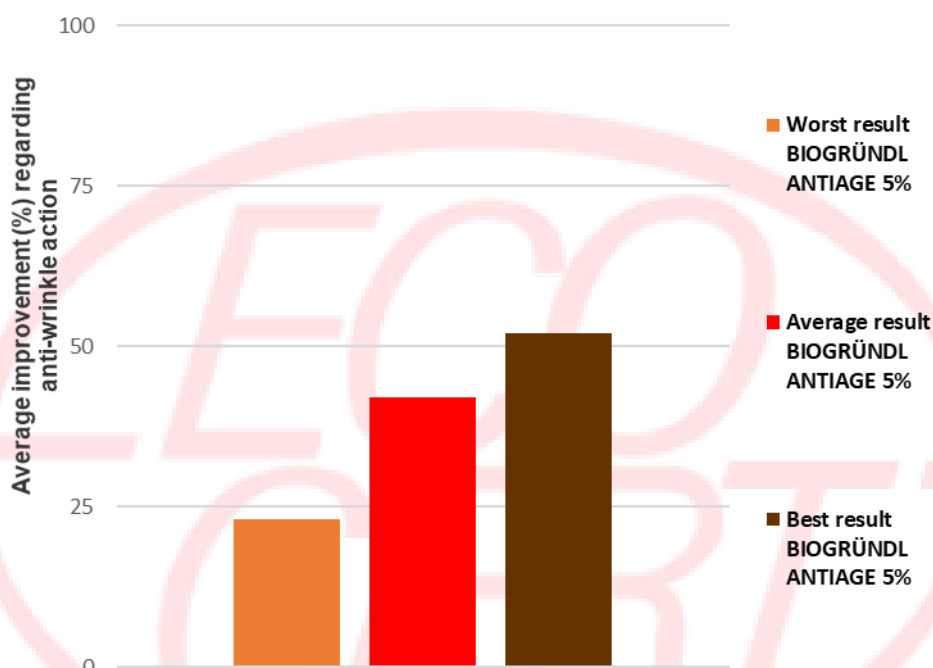
AI rank between 41 – 60%: Appreciable improvement regarding placebo.

AI rank between 61 – 80%: Great improvement regarding placebo.

AI rank between > 81%: Excellent cosmetic result.

TECHNICAL DATA SHEET

BIOGRÜNDL ANTIAGE 5%



Results:

Worst result BIOGRÜNDL ANTIAGE 5%: 23%.

Average result BIOGRÜNDL ANTIAGE 5%: 42%.

Best result BIOGRÜNDL ANTIAGE 5%: 52%.

Results meaning:

AI rank between < 20%: No significant changes.

AI rank between 21 – 40%: Slight improvement regarding placebo.

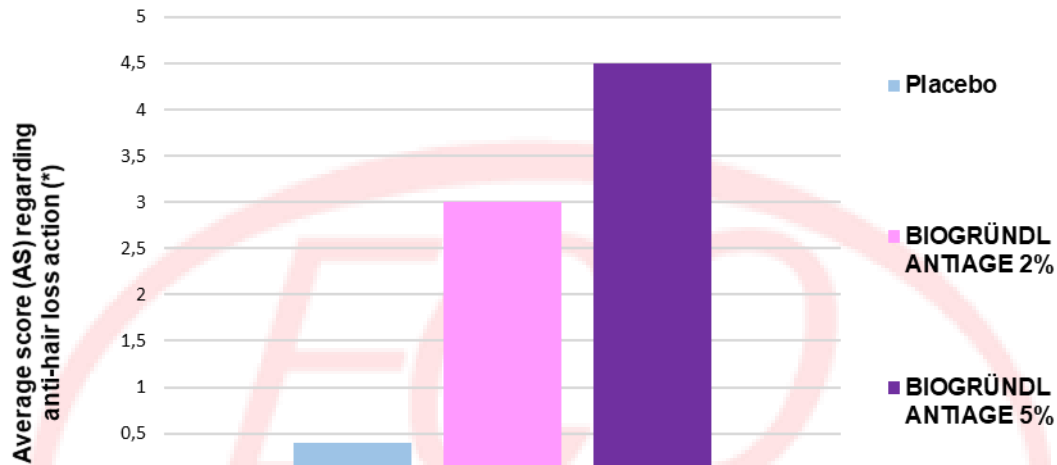
AI rank between 41 – 60%: Appreciable improvement regarding placebo.

AI rank between 61 – 80%: Great improvement regarding placebo.

AI rank between > 81%: Excellent cosmetic result.

TECHNICAL DATA SHEET

HAIR/SCALP CONDITION EVALUATION AFTER 30 DAYS



(*) Anti-hair loss action was determined by hair amount quantification collected in a brush or a comb, from volunteers.

Total number of days in which the assay was performed (treatment was applied):
 D = 10 days (every three days during the effectiveness test).

Total number of days in which the results were measured:
 D' = 1 day (effectiveness test last day).

Average score:

Worst result: Zero limit value is assigned.

Best result: Five limit value is assigned.

Score is assigned to obtained results between the two limit values.

Average computation for each obtained results group is done:

Placebo, 2% BIOGRÜNDL ANTIAGE by BIOGRÜNDL, S.L., 5% BIOGRÜNDL ANTIAGE by BIOGRÜNDL, S.L..

Results meaning:

AS rank between 0 – 1: No significant changes.

AS rank between 1 – 2: Slight improvement regarding placebo.

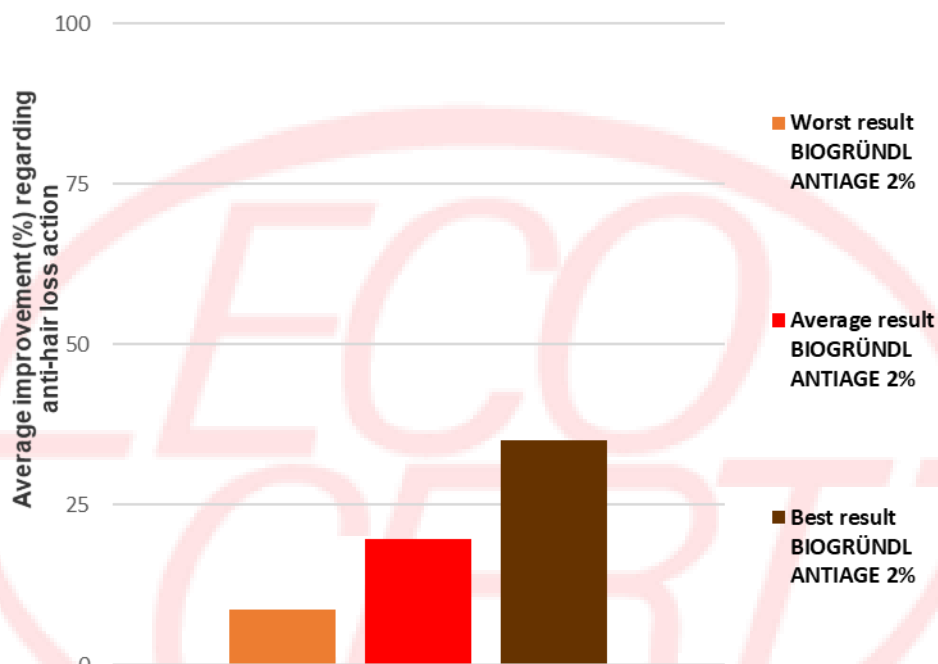
AS rank between 2 – 3: Appreciable improvement regarding placebo.

AS rank between 3 – 4: Great improvement regarding placebo.

AS rank between 4 – 5: Excellent cosmetic result.

TECHNICAL DATA SHEET

BIOGRÜNDL ANTIAGE 2%



Results:

Worst result BIOGRÜNDL ANTIAGE 2%: **8,5%**.

Average result BIOGRÜNDL ANTIAGE2%: **19,5%**.

Best result BIOGRÜNDL ANTIAGE 2%: **35%**.

Results meaning:

AI rank between < 20%: No significant changes.

AI rank between 21 – 40%: Slight improvement regarding placebo.

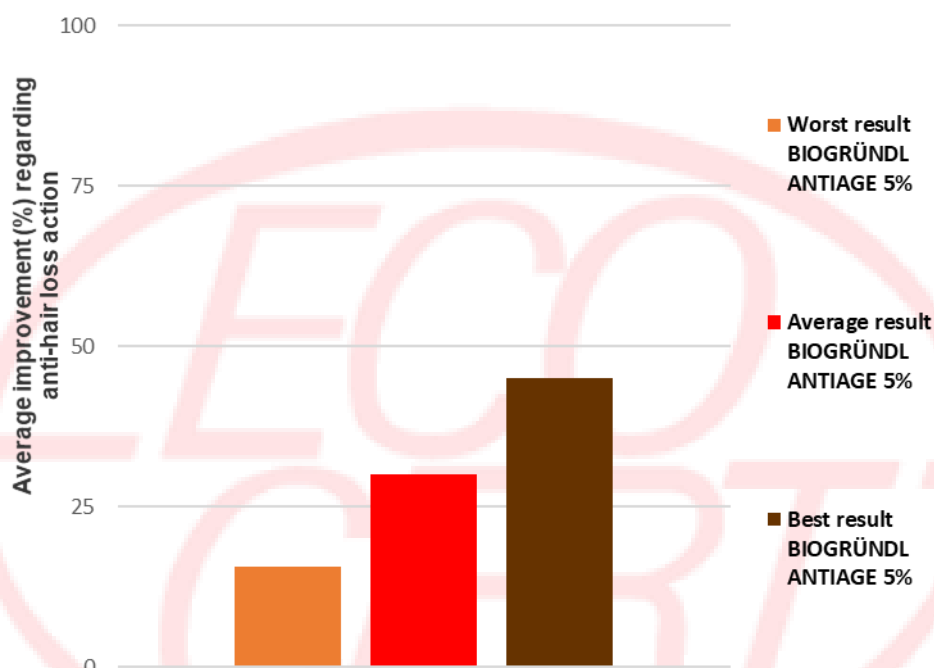
AI rank between 41 – 60%: Appreciable improvement regarding placebo.

AI rank between 61 – 80%: Great improvement regarding placebo.

AI rank between > 81%: Excellent cosmetic result.

TECHNICAL DATA SHEET

BIOGRÜNDL ANTIAGE 5%



Results:

Worst result BIOGRÜNDL ANTIAGE 5%: 15,5%.

Average result BIOGRÜNDL ANTIAGE 5%: 30%.

Best result BIOGRÜNDL ANTIAGE 5%: 45%.

Results meaning:

AI rank between < 20%: No significant changes.

AI rank between 21 – 40%: Slight improvement regarding placebo.

AI rank between 41 – 60%: Appreciable improvement regarding placebo.

AI rank between 61 – 80%: Great improvement regarding placebo.

AI rank between > 81%: Excellent cosmetic result.