



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

ROSEMARY EXTRACT / A / HGL / CA11 /



Trade Name: ROSEMARY EXTRACT / A / HGL / CA11 /.

Product Code: ERMAHGLCA11.

INCI Name: AQUA, GLYCERIN, ROSMARINUS OFFICINALIS EXTRACT, POTASSIUM SORBATE.

INCI Status: Conforms.

REACH Status: Low Volume Exemption.

CAS Number: 7732-18-5; 56-81-5; 84604-14-8; 24634-61-5 / 590-00-1.

EC Number: 231-791-2; 200-289-5; 283-291-9; 246-376-1.

Origin: GLYCERIN: Vegetable origin.

ROSMARINUS OFFICINALIS EXTRACT: Vegetable origin.

POTASSIUM SORBATE: 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. 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: Hair capillary preparations (anti-hair loss, anti-dandruff and anti-grease). Bath preparations. Facial tonics. Deodorants. Face masks. Antiseptic, antioxidant and anti-radical products.

Properties: Antioxidant, purifying, antiseptic, analgesic, deodorant, stimulant and lightly rubefacient.

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

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

Rosemary (*Rosmarinus officinalis* L.) is an aromatic shrub belonging to the Labiatae family. It is very common in the whole Mediterranean Basin.

The most interesting active substances of rosemary are essential oil, whose main components are pinene, camphor, eucalyptol, borneol, bornyl acetate, camphene and limonene; flavonoids (apigenin, luteolin); triterpenes (ursolic and oleanolic acids); phenols (rosmarinic, chlorogenic, caffeic and labiatic acids); tannins; saponins.

ROSEMARY EXTRACT by BIOGRÜNDL, S.L. is obtained from leaves and flowers of the plant, through extraction with a blend of water and glycerin.

USE AND DOSAGE

The incorporation of rosemary extract in cosmetics is justified by its antioxidant, purifying, antiseptic, analgesic, deodorant, stimulant and lightly rubefacient properties.

ROSEMARY EXTRACT by BIOGRÜNDL, S.L. is indicated in hair capillary preparations (anti-hair loss, anti-dandruff, anti-grease); preparations for the bath; facial tonics; deodorants; face masks; antiseptic, antioxidant and anti-radical products.

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% ROSEMARY EXTRACT 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, ROSMARINUS OFFICINALIS EXTRACT, POTASSIUM SORBATE.

EFFECTIVENESS TESTS

Assay: Double blind spot trial and subsequent cosmetic evaluation.

Assayed parameters: Antioxidant action. Deodorant action. Anti-hair loss action. Anti-dandruff action. Anti-seborrheic action.

N (volunteers): 30 (15 ♀ and 15 ♂).

Age (volunteers): 18 – 65 years old.

Left side part to be treated:

Placebo, 30 volunteers, suitable cosmetic base.

Right side part to be treated:

ROSEMARY EXTRACT 2%, 15 volunteers, suitable cosmetic base.

Right side part to be treated:

ROSEMARY EXTRACT 5%, 15 volunteers, suitable cosmetic base.

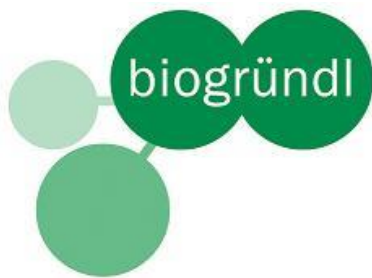


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Assayed parameters:

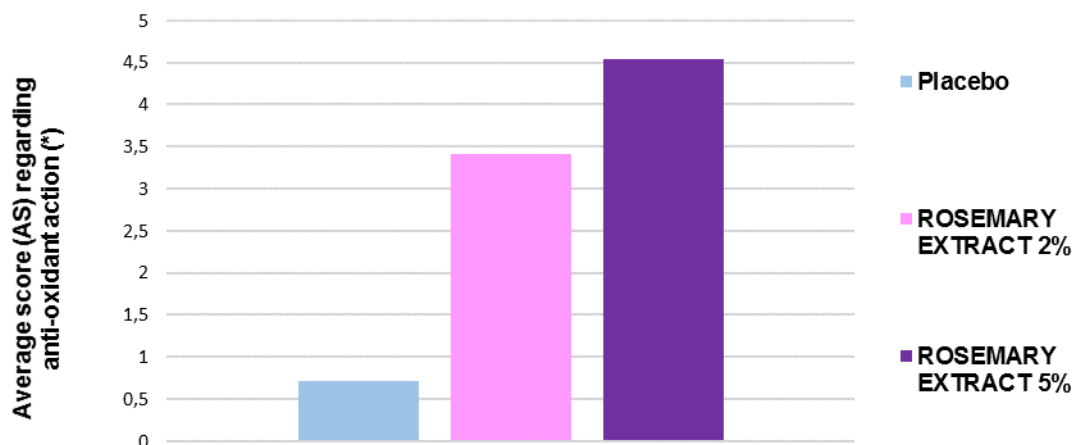
	Assay	N (volunteers)	Age (volunteers)	Placebo	ROSEMARY EXTRACT 2%	ROSEMARY EXTRACT 5%	Assay performed (Days)	Results measured (Days)
Anti-oxidant action	Double blind spot trial and subsequent cosmetic evaluation.	N = 30 15 ♀ and 15 ♂	18 – 65	Left side part	Right side part 15 volunteers.	Right side part. 15 volunteers.	D = 30	D' = 1
Deodorant action	Double blind spot trial and subsequent cosmetic evaluation.	N = 30 15 ♀ and 15 ♂	18 – 65	Left side part	Right side part 15 volunteers.	Right side part. 15 volunteers.	D = 30	D' = 30
Anti-hair loss action	Double blind spot trial and subsequent cosmetic evaluation.	N = 30 15 ♀ and 15 ♂	18 – 65	Left side part	Right side part 15 volunteers.	Right side part. 15 volunteers.	D = 10	D' = 1
Anti-dandruff action	Double blind spot trial and subsequent cosmetic evaluation.	N = 30 15 ♀ and 15 ♂	18 – 65	Left side part	Right side part 15 volunteers.	Right side part. 15 volunteers.	D = 10	D' = 1
Anti-seborrheic action	Double blind spot trial and subsequent cosmetic evaluation.	N = 30 15 ♀ and 15 ♂	18 – 45	Left side part	Right side part 15 volunteers.	Right side part. 15 volunteers.	D = 10	D' = 1



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SKIN CONDITION EVALUATION AFTER 30 DAYS



(*) Anti-oxidant action was evaluated by determination of lipid rancidity degree found in volunteers skin sample.

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% ROSEMARY EXTRACT by BIOGRÜNDL, S.L., 5% ROSEMARY EXTRACT by BIOGRÜNDL, S.L..

Results meaning:

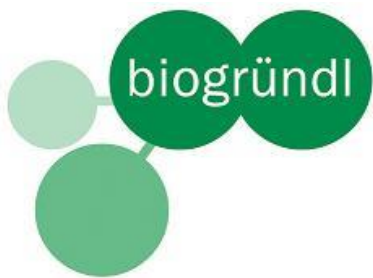
AS rank between 0 – 1: No significant changes.

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.

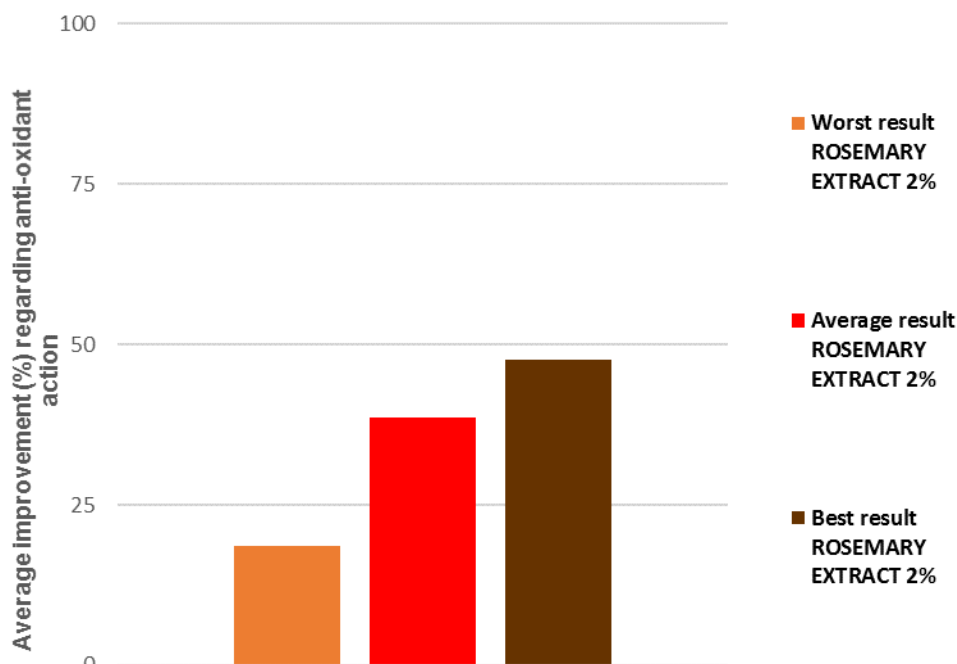
AS rank between 4 – 5: Excellent cosmetic result.



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ROSEMARY EXTRACT 2%



Results:

Worst result ROSEMARY EXTRACT 2%: 18,5%.

Average result ROSEMARY EXTRACT 2%: 38,5%.

Best result ROSEMARY EXTRACT 2%: 47,5%.

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.

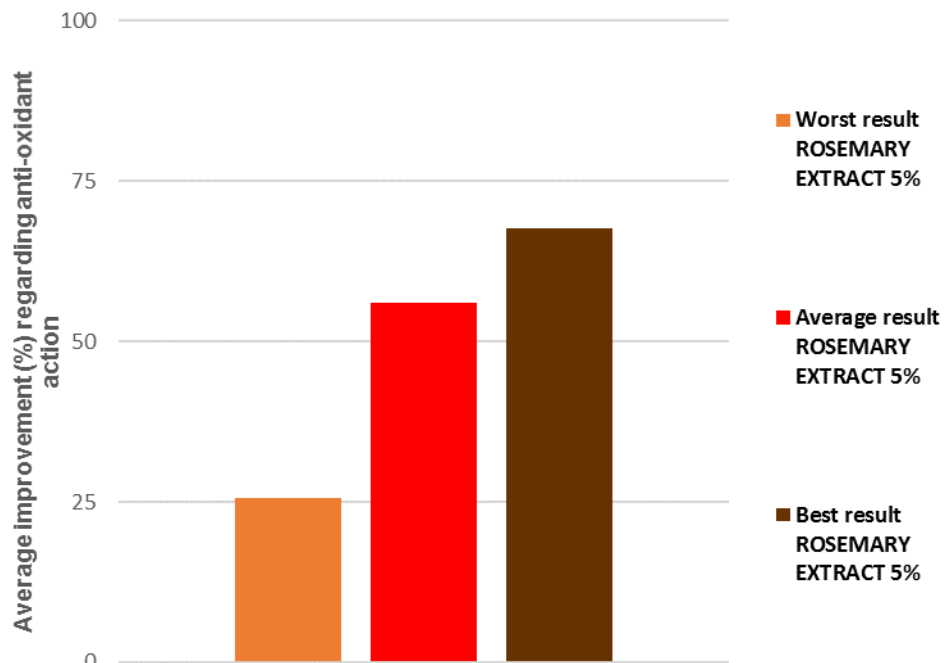
AI rank between > 81%: Excellent cosmetic result.



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ROSEMARY EXTRACT 5%



Results:

Worst result ROSEMARY EXTRACT 5%: 25,5%.

Average result ROSEMARY EXTRACT 5%: 56%.

Best result ROSEMARY EXTRACT 5%: 67,5%.

Results meaning:

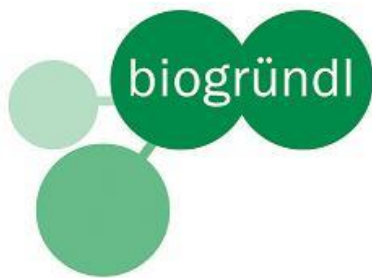
AI rank between < 20%: No significant changes.

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.

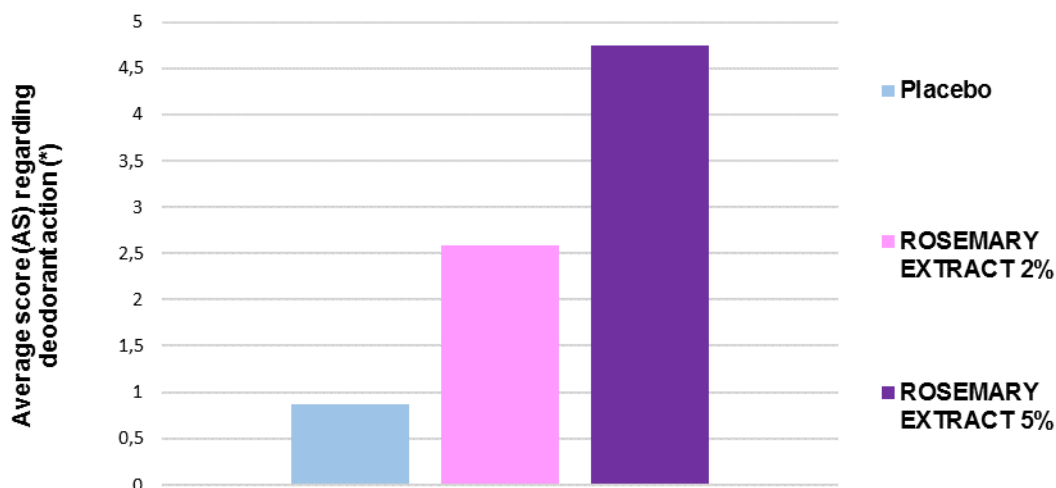
AI rank between > 81%: Excellent cosmetic result.



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SKIN TRANSPARATION EVALUATION AFTER 30 DAYS



(*) Deodorant action was measured by reduction of perspiration odour (growth reduction of the bacteria that causes bad odour) in volunteers treated zone (armpits).

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' = 30 days (every day during the effectiveness test).

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% ROSEMARY EXTRACT by BIOGRÜNDL, S.L., 5% ROSEMARY EXTRACT by BIOGRÜNDL, S.L..

Results meaning:

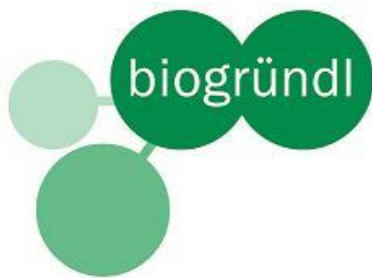
AS rank between 0 – 1: No significant changes.

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.

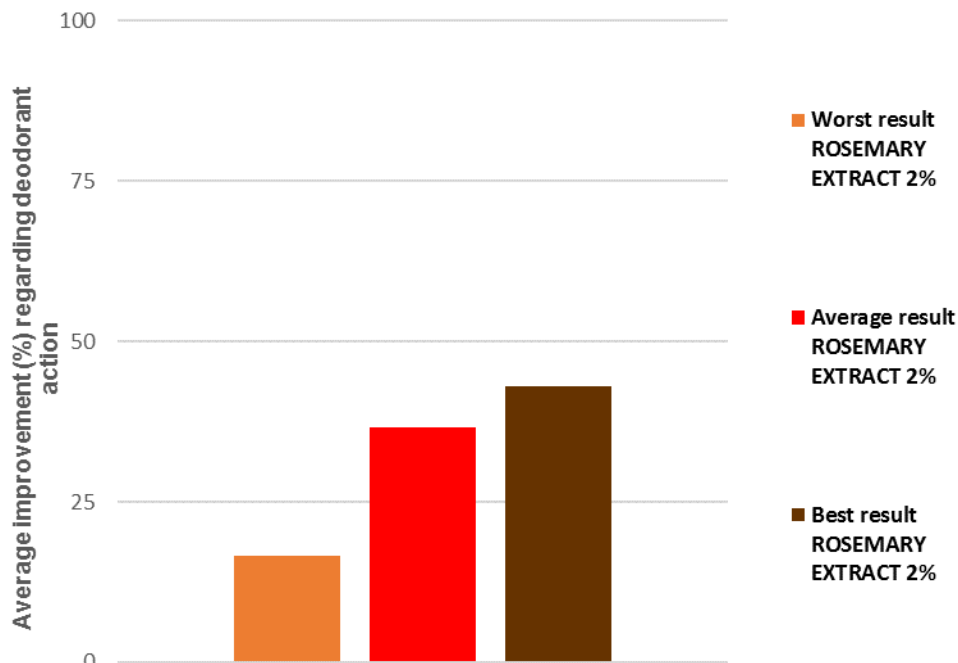
AS rank between 4 – 5: Excellent cosmetic result.



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TECHNICAL DATA SHEET

ROSEMARY EXTRACT 2%



Results:

Worst result ROSEMARY EXTRACT 2%: 16,5%.

Average result ROSEMARY EXTRACT 2%: 36,5%.

Best result ROSEMARY EXTRACT 2%: 43%.

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.

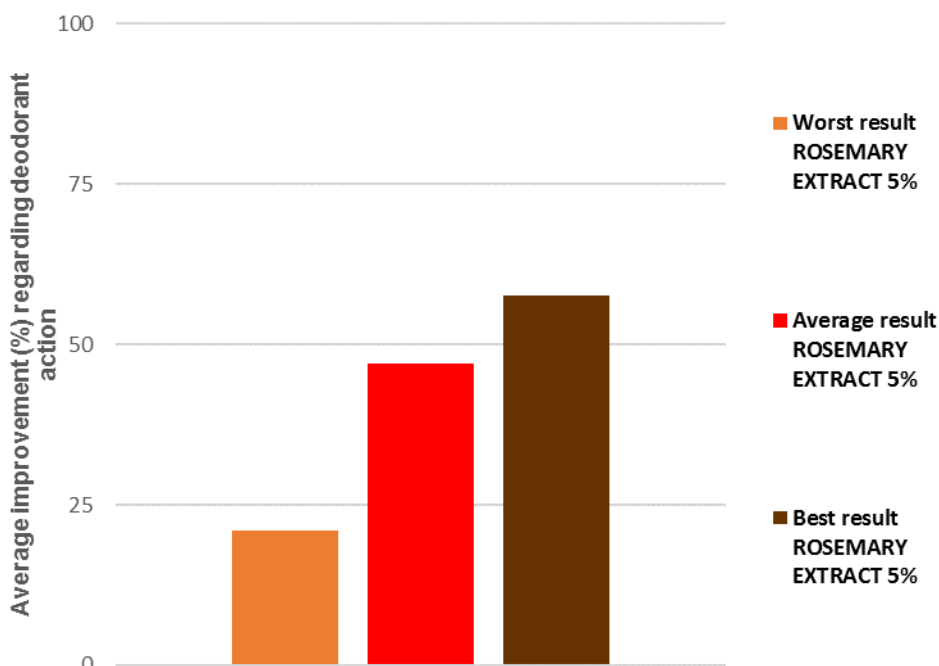
AI rank between > 81%: Excellent cosmetic result.



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ROSEMARY EXTRACT 5%

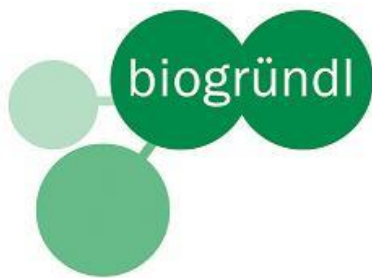


Results:

Worst result ROSEMARY EXTRACT 5%: 21%.
Average result ROSEMARY EXTRACT 5%: 47%.
Best result ROSEMARY EXTRACT 5%: 57,5%.

Results meaning:

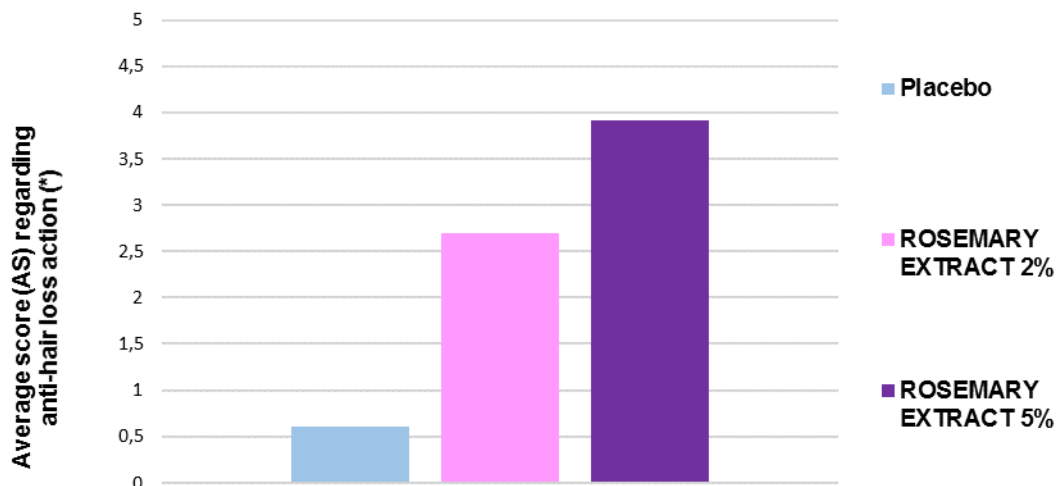
AI rank between < 20%: No significant changes.
AI rank between 21 – 40%: Slight improvement regarding placebo.
AI rank between 41 – 60%: Appreciable improvement regarding placebo.
AI rank between 61 – 80%: Great improvement regarding placebo.
AI rank between > 81%: Excellent cosmetic result.



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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% ROSEMARY EXTRACT by BIOGRÜNDL, S.L., 5% ROSEMARY EXTRACT 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.

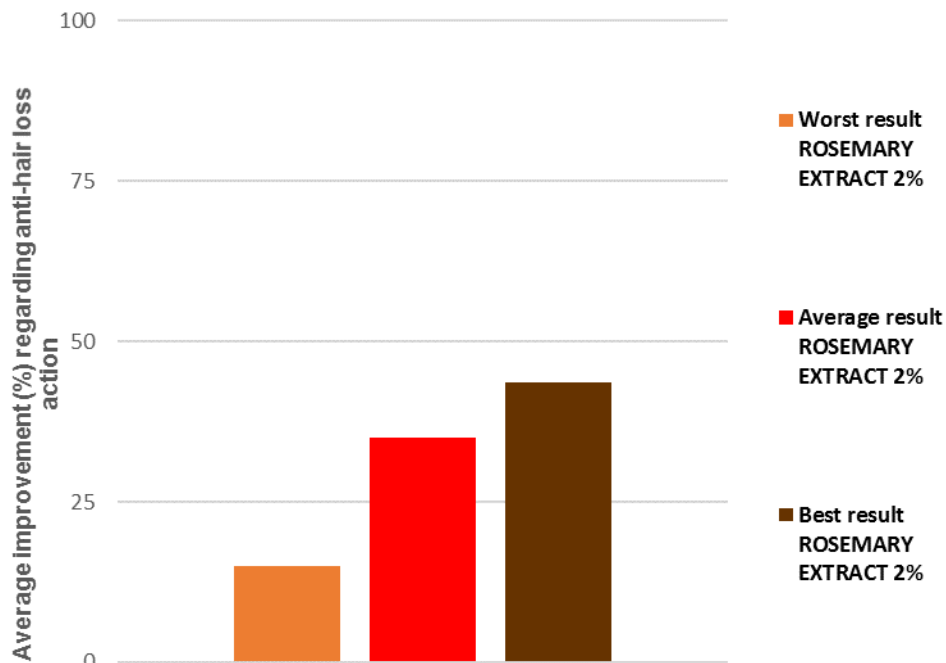
AS rank between 4 – 5: Excellent cosmetic result.



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ROSEMARY EXTRACT 2%

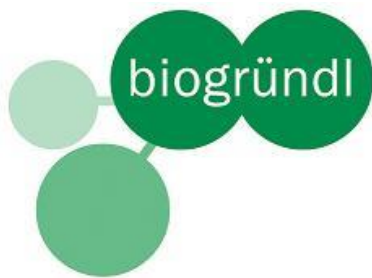


Results:

Worst result ROSEMARY EXTRACT 2%: 15%.
Average result ROSEMARY EXTRACT 2%: 35%.
Best result ROSEMARY EXTRACT 2%: 43,5%.

Results meaning:

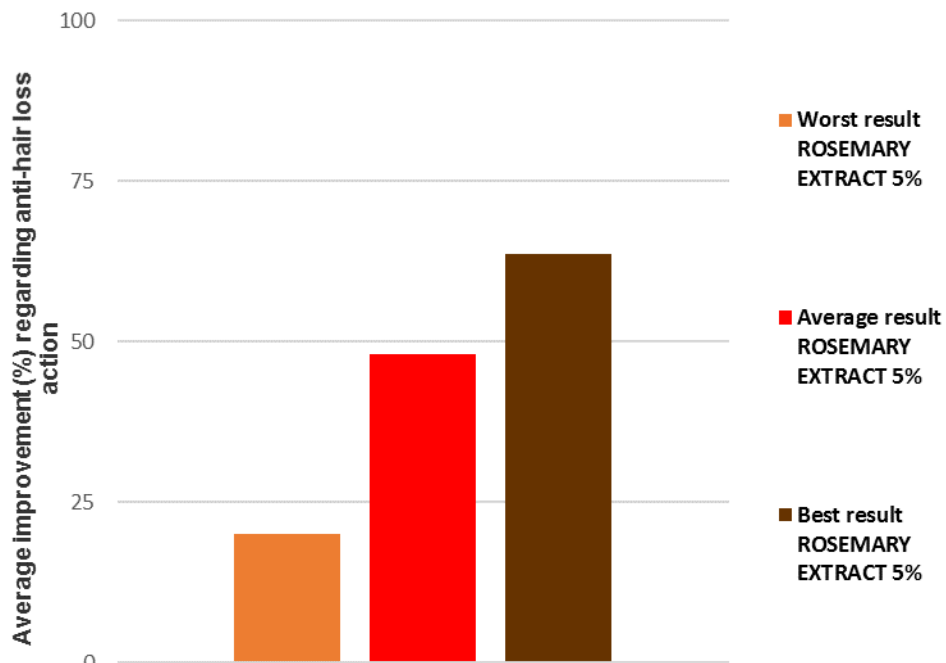
AI rank between < 20%: No significant changes.
AI rank between 21 – 40%: Slight improvement regarding placebo.
AI rank between 41 – 60%: Appreciable improvement regarding placebo.
AI rank between 61 – 80%: Great improvement regarding placebo.
AI rank between > 81%: Excellent cosmetic result.



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ROSEMARY EXTRACT 5%

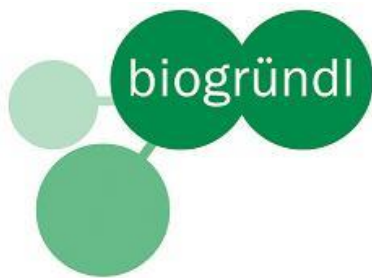


Results:

Worst result ROSEMARY EXTRACT 5%: 20%.
Average result ROSEMARY EXTRACT 5%: 48%.
Best result ROSEMARY EXTRACT 5%: 63,5%.

Results meaning:

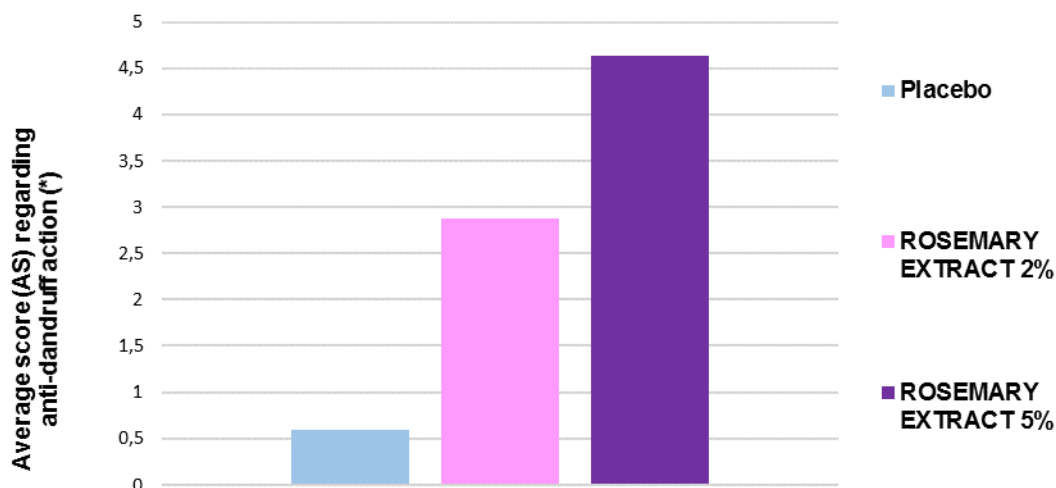
AI rank between < 20%: No significant changes.
AI rank between 21 – 40%: Slight improvement regarding placebo.
AI rank between 41 – 60%: Appreciable improvement regarding placebo.
AI rank between 61 – 80%: Great improvement regarding placebo.
AI rank between > 81%: Excellent cosmetic result.



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HAIR/SCALP CONDITION EVALUATION AFTER 30 DAYS



(*) Anti-dandruff action was measured by observation and quantification of dandruff volume found in volunteers scalp/hair.

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% ROSEMARY EXTRACT by BIOGRÜNDL, S.L., 5% ROSEMARY EXTRACT 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.

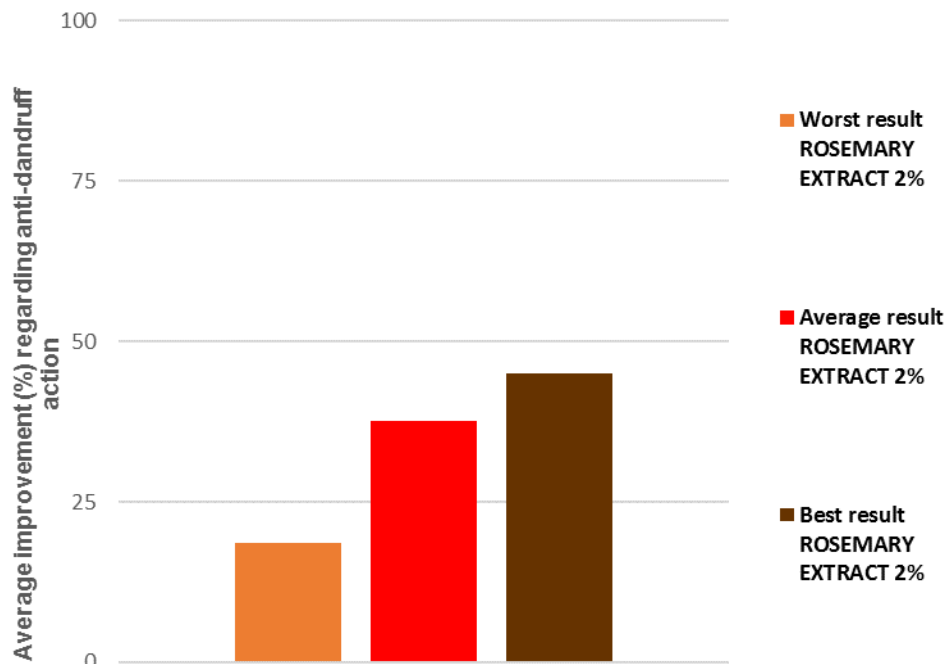
AS rank between 4 – 5: Excellent cosmetic result.



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ROSEMARY EXTRACT 2%



Results:

Worst result ROSEMARY EXTRACT 2%: 18,5%.

Average result ROSEMARY EXTRACT 2%: 37,5%.

Best result ROSEMARY EXTRACT 2%: 45%.

Results meaning:

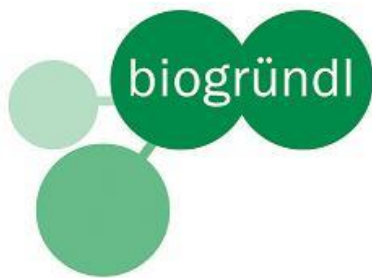
AI rank between < 20%: No significant changes.

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.

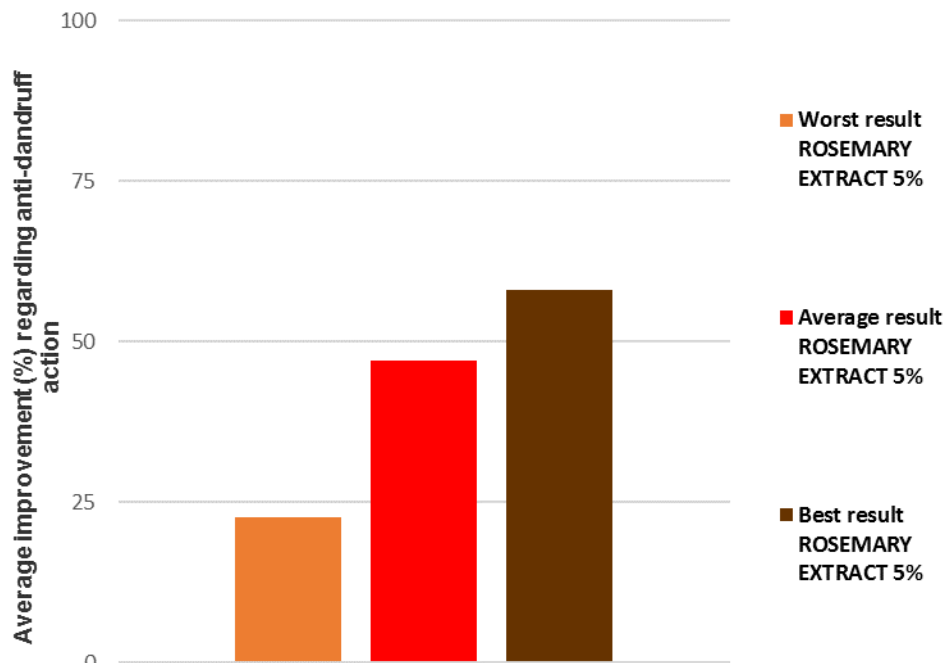
AI rank between > 81%: Excellent cosmetic result.



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ROSEMARY EXTRACT 5%



Results:

Worst result ROSEMARY EXTRACT 5%: 22,5%.

Average result ROSEMARY EXTRACT 5%: 47%.

Best result ROSEMARY EXTRACT 5%: 58%.

Results meaning:

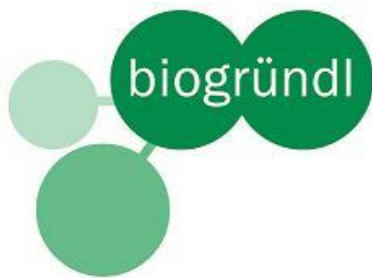
AI rank between < 20%: No significant changes.

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.

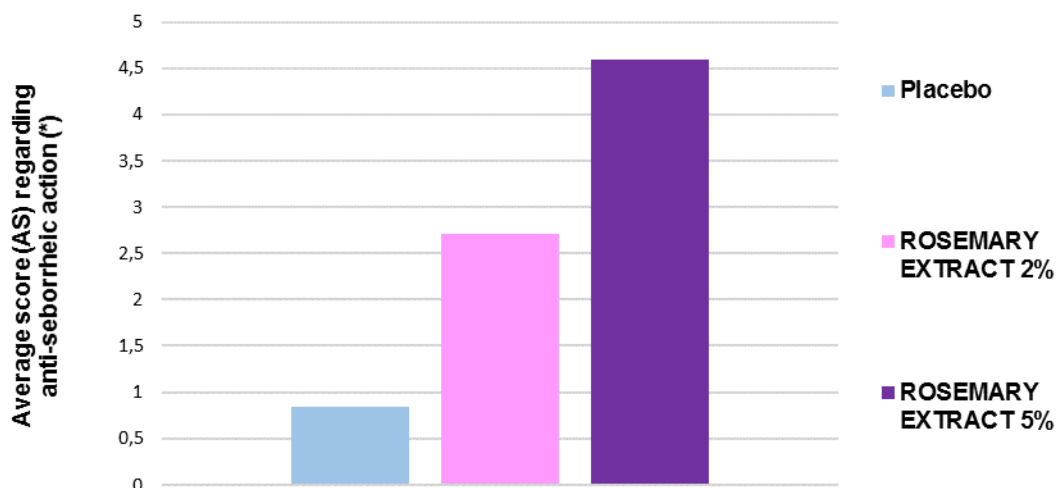
AI rank between > 81%: Excellent cosmetic result.



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TECHNICAL DATA SHEET

HAIR/SCALP CONDITION EVALUATION AFTER 30 DAYS



(*) Anti-seborrheic action was determined by quantification of fat substance amount collected from volunteers hair sample.

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% ROSEMARY EXTRACT by BIOGRÜNDL, S.L., 5% ROSEMARY EXTRACT by BIOGRÜNDL, S.L..

Results meaning:

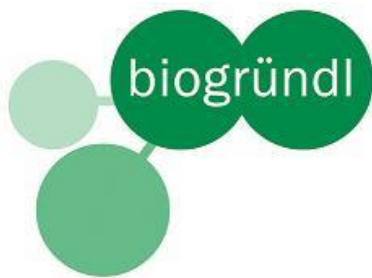
AS rank between 0 – 1: No significant changes.

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.

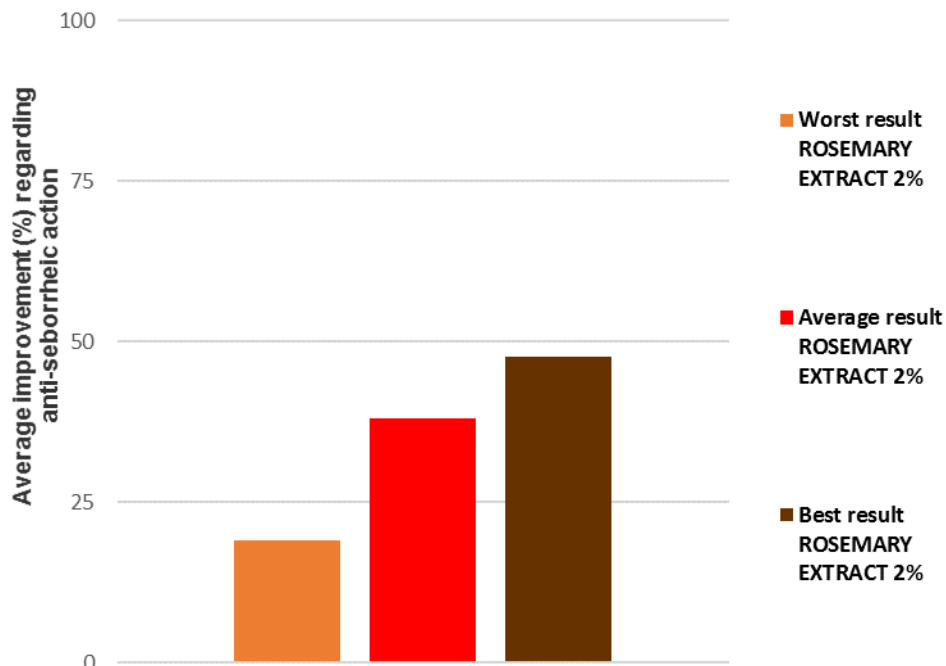
AS rank between 4 – 5: Excellent cosmetic result.



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TECHNICAL DATA SHEET

ROSEMARY EXTRACT 2%



Results:

Worst result ROSEMARY EXTRACT 2%: 19%.

Average result ROSEMARY EXTRACT 2%: 38%.

Best result ROSEMARY EXTRACT 2%: 47%.

Results meaning:

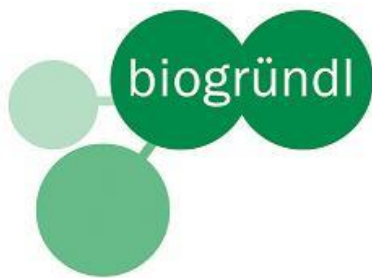
AI rank between < 20%: No significant changes.

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.

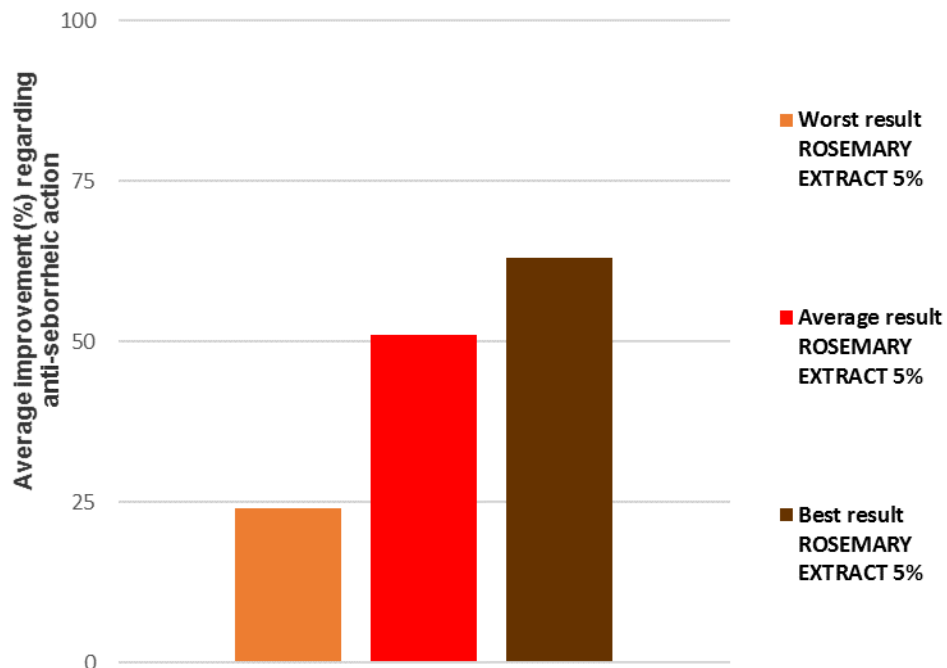
AI rank between > 81%: Excellent cosmetic result.



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TECHNICAL DATA SHEET

ROSEMARY EXTRACT 5%



Results:

Worst result ROSEMARY EXTRACT 5%: **24%**.
Average result ROSEMARY EXTRACT 5%: **51%**.
Best result ROSEMARY EXTRACT 5%: **63%**.

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.