Appendix to the Test Report
Appendix no. F/51616/05/26
to sample/s no. 51616/05/26 to the order no. K/0/05/2026/534

IN USE/INSTRUMENTAL TEST	
Product name	**5AR roots restrain scalp lotion**
Test start date	**21.07.2026**
Test end date	**22.10.2026**
Report date	**27.10.2026**

Test purpose

Aims of the in-use test:

- assessment of long-term tolerance to the tested product;
- assessment and verification of the performance (properties) of the product declared by the Manufacturer;

Consumer evaluation
The aim of the instrumental test was:

- assessment and verification of the performance (properties) of the product declared by the Customer– the long-term effect.

Microbiological purity test

Microbiologically approved product.
The microbiological purity tests were carried out in GBA POLSKA Laboratory.

Dermatological test

Dermatologically approved product.
The dermatological tests were carried out in GBA POLSKA Laboratory.

Product characteristics

PARAMETER	DESCRIPTION
Purpose	Scalp and hair care
Directions for use	After washing with the hair shampoo, shake the bottle and apply the lotion directly to the scalp using a pipette, gently massaging it in. Leave it on for a few minutes, then proceed with styling your hair. For androgenetic alopecia, use daily or every other day on a continuous basis. For slow hair growth, chronic alopecia, and to stimulate thin and weak hair, use 2–3 times per week for a 3-month course.
Application period	3 months

Qualitative composition of the product

INCI (*)**:** *Aqua, Butilene Glycol, Serenoa Serrulata Fruit Extract, Alcohol Denat, Dextran, Acetyl Tetrapeptide-3, Trifolium Pratense (Clover) Flower Extract, Nasturtium Officinale Leaf/Stem Extract, PEG-40 Hydrogenated Castoroil, PPG-26-buteth-26, Apigenin, Oleanoli Acid, Biotinoyl Tripeptide-1, Pisum Sativum (Pea) Sprout Extract, Zingiber Officinale (Ginger) Root Extract, Mentha Piperita (Peppermint) Leaf Extract, Propylene Glycol, Sorbitan Caprylate, Ginkgo Biloba Leaf Extract, Panthenyl Ethyl Ether, Milk Peptide, Lactose, Inositol, Acetyl Cysteine, Acetyl Methionine, Caffeine, Niacinamide, Propanediol, Coceth-7, PPG-1-PEG-9 Lauryl Glycol Ether, Benzoic Acid, Phenoxyethanol, Sodium Benzoate, Sodium Citrate, Biotin, Carbomer, Polysorbate 20, Palmitoyl Tripeptide-1, Palmitoyl Tetrapeptide-7, Citric Acid, Copper Tripeptide-1, Geranium Bourbon (Pelargonium Roseum Willd) Essential Oil, Graperfruit (Citrus Paradisi) Essential Oil, Patchouli (Pogostemon Cablin Blanco) Essential Oil, Nutmeg Essential Oil.*

(*) – Customer is fully responsible for the compliance of the samples delivered for testing with the declared qualitative composition; the Laboratory does not analyze the composition of the sample for compliance with the current legal requirements

The scope of the tests is in accordance with:

- The general principles of medical ethics in clinical research coming from the Declaration of Helsinki (June 1964) and its successive amendments.
- Regulation of the European Parliament and Council Regulation (EC) No 1223/2009 of 30 November 2009 on cosmetics.
- Regulation of the European Parliament and Council Regulation (EC) No 655/2013 of 10 July 2013 on cosmetics.
- Cosmetics Europe - The Personal Care Association Guidelines „Product test Guidelines for the Assessment of Human Skin Compatibility 1997".
- Cosmetics Europe - The Personal Care Association „Guidelines for the Evaluation of the Efficacy of Cosmetic Products 2008".
- European Regulation (EU) 2016/679 and its subsequent amendments on the protection and processing of personal data and on the free movement of such data.

Research methodology

In-use test was carried out:

- according to the internal procedure of the Cosmetics Research Centre, PB-34/LK;
- under the guidance of a specialist and a dermatologist;
- on a group of 20 study subjects, also at home.

The tested sample was used in accordance with the Manufacturer's recommendations. After the declared time of application, the subjects were asked to fill in the evaluation questionnaire according to their own feelings.
In the evaluation sheet, in the part containing the Manufacturer's declarations, a 4-point scale was used, with an equal number of positive and negative answers.
A declaration may be confirmed when the sum of positive answers exceeds 50% of the assessments of all subjects.
The test results may be influenced by factors such as: the type and condition of the scalp, lifestyle, genetic conditions, individual preferences, environmental conditions.

Instrumental tests were carried out:

- in the Cosmetics Research Centre of GBA POLSKA;
- under the guidance of a specialist;
- on a group of 10 study subjects;
- using specialized measuring equipment, i.e .:
  - Trichoscan HD 4.0 – analysis of hair density and thickness, total number of hairs in the examined zone, % of hair in the anagen and telogen phase, % of vellus hair, % of terminal hair and hair growth dynamics according to internal procedure;
- in standardized environmental conditions, i.e. in an air-conditioned room with a temperature of 20-25°C and a relative humidity of 40-60%.

- on individually selected areas of the scalp, the same at the beginning of the tests (T_0) and at their end (T_1);
- on the thoroughly cleansed skin, without other cosmetics.

The claim can be confirmed when there is an improvement confirmed in case of the majority of the study subjects, i.e. 6 out of 10.

Selection of the Study Subjects

The selection of the Study Subjects was conducted in accordance with the Research Procedure SOP ORG 001, taking into account:

- The Declaration of Helsinki of 1964 (with subsequent amendments).
- Current Polish and European legal regulations.
- Cosmetics Europe directives with use of inclusion and exclusion criteria.

20 subjects were selected for the study. They completed a detailed questionnaire regarding their lifestyle, current health condition, past illnesses, eating habits, use of medicines and any stimulants.
Study participants were selected randomly from a general panel based on study-specific inclusion and exclusion criteria and their ability to comply with the constraints required by the study methodology.
All subjects selected for the study met the requirements for inclusion in the study and signed consent to consciously participate in it. They were also informed about the purpose of the study, method of testing and about possible side effects.

GENERAL INCLUSION CRITERIA	Healthy subject.
	Declaring to have a health insurance.
	Signing an “informed consent form” for this study.
	Skin without irritation and changes requiring pharmacological treatment.
	Cooperative subject, aware of the necessity and duration of study and availability to ensure visits to the investigation centre.

SPECIFIC INCLUSION CRITERIA	Sex	Female, male
	Age	20 – 50
	Scalp type	All
	Hair type	All
	Skin phototype (Fitzpatrick scale)	I-IV
	Others	Subjects who regularly or occasionally use specific groups of cosmetics. Subjects with androgenetic alopecia.

GENERAL NON INCLUSION CRITERIA	Subjects who use any treatment on the studied zone.
	Being in exclusion period.
	Pregnant or breastfeeding woman or woman planning a pregnancy during the study.
	Subject having a skin disease within the study zone.
	A subject with or having a known history of acute or chronic dermatological, medical and/or physical conditions that could affect the outcome of the study.
	A subject deemed by the researcher to be likely to be incompatible with the research methodology.
	A person planning to be hospitalized during the study period.

All participants of the long-term effect study were obliged to:

- use the product regularly during the period of 3 months,
- not to use any other products with identical or analogous properties during the tests,

- not to change, for the entire duration of the test, the scalp care products used so far, intended for purposes other than the tested product,
- immediately discontinue the use of the product and to report to the specialist supervising the research in case any undesirable effects occurred;
- come to the GBA POLSKA Cosmetics Research Center on the dates specified in the research plan.

Characteristics and composition of the group participating in the study

The study was conducted on a group of 20 subjects selected according to the directions.

Subject's no.	Age	Sex		Hair type		Scalp type		D0		D86	
1.	50	M		N		N		21.07.2026		15.10.2026	
2.	36	F		D		O		21.07.2026		15.10.2026	
3.	46	M		D		D		21.07.2026		15.10.2026	
4.	50	F		N		N		28.07.2026		22.10.2026	
5.	50	F		G		N		21.07.2026		15.10.2026	
6.	38	F		N		O		21.07.2026		15.10.2026	
7.	42	F		G		O		21.07.2026		15.10.2026	
8.	38	F		G		D		21.07.2026		15.10.2026	
9.	50	F		D		D		28.07.2026		22.10.2026	
10.	27	F		N		N		28.07.2026		22.10.2026	
11.	47	F		D		D		21.07.2026		15.10.2026	
12.	46	F		D		O		21.07.2026		15.10.2026	
13.	46	F		D		D		21.07.2026		15.10.2026	
14.	25	F		D		O		21.07.2026		15.10.2026	
15.	37	F		G		D		21.07.2026		15.10.2026	
16.	50	M		N		N		21.07.2026		15.10.2026	
17.	39	F		G		O		21.07.2026		15.10.2026	
18.	47	F		N		O		21.07.2026		15.10.2026	
19.	30	F		D		N		21.07.2026		15.10.2026	
20.	30	F		D		D		21.07.2026		15.10.2026	
Mean	**41**	**F**	**17**	**D**	**9**	**D**	**7**	**D0**	**20**	**D86**	**20**
Min	**25**	**M**	**3**	**N**	**6**	**N**	**6**				
Max	**50**			**G**	**5**	**O**	**7**				

Legend: F – female, M – male, D – dry, N – normal, G – greasy, O – oily

Test results

1. Results of organoleptic evaluation

Values are rounded, where 1 volunteer represents 5,0%.

Parameter	% positive responses	Result
Proper consistency	100%	POSITIVE
Pleasant fragrance	65%	POSITIVE
Proper fragrance intensity	95%	POSITIVE
Pleasant application	45%	NEGATIVE
Easy spreading	60%	POSITIVE
High efficiency	40%	NEGATIVE

2. Evaluation of the effects of the action – after 3 months:

Values are rounded, where 1 volunteer represents 5,0%.

Parameter	% Positive responses	Result
Soothes and pleasantly cares for the scalp (reduces tightness)	100%	POSITIVE
It makes your hair look thicker	100%	POSITIVE
It makes hair appear thicker at the roots	95%	POSITIVE
Helps visually increase hair density	100%	POSITIVE
It helps reduce the appearance of thinning hair	95%	POSITIVE
It makes thinning areas less noticeable	95%	POSITIVE

3. Marketing evaluation:

Values are rounded, where 1 volunteer represents 5,0%.

Parameter		% responses
Overall rating of the tested product - 5 - the best rating, 1 - the worst rating	5	35%
	4	45%
	3	20%
	2	0%
	1	0%
Would you choose the tested product in the future?	Yes	75%
	I don't know	25%
	No	0%
How do you assess the tested product compared to others of this type previously used?	Is better	55%
	I don't see the difference	45%
	Is worse	0%

4. Detailed information

ORGANOLEPTIC EVALUATION						
		Proper	*Too thick*	*Too thin*		
1.	Consistency	20	0	0		
		Pleasant	*Neutral*	*Unpleasant*		
2.	Fragrance	13	7	0		
		Proper	*Not intense enough*	*Too intense*		
3.	Fragrance intensity	19	0	1		
		Pleasant	*Moderate*	*Unpleasant*		
4.	Application	9	11	0		
		Easy	*Moderate*	*Hard*		
5.	Spreading	12	8	0		
		High	*Medium*	*Low*		
6.	Efficiency	8	11	1		
EVALUATION OF EFFECTS – after regular use						
		Yes	*Rather yes*	*Rather no*	*No*	
7.	Soothes and pleasantly cares for the scalp (reduces tightness)	10	10	0	0	
8.	It makes your hair look thicker	9	11	0	0	
9.	It makes hair appear thicker at the roots	12	7	1	0	
10.	Helps visually increase hair density	9	11	0	0	
11.	It helps reduce the appearance of thinning hair	9	10	1	0	
12.	It makes thinning areas less noticeable	9	10	1	0	
CONSUMER EVALUATION						
		5	*4*	*3*	*2*	*1*
13.	Overall rating of the tested product - 5 - the best rating, 1 - the worst rating	7	9	4	0	0
		Yes	*I don't know*	*No*		
14.	Would you choose the tested product in the future?	15	5	0		
		Is better	*I don't see the difference*	*Is worse*		
15.	How do you assess the tested product compared to other products of this type previously used?	11	9	0		

5. DERMATOLOGIST'S OPINION

Based on the conducted research, it was found that in case 20 of 20 study subjects, the repeated application of the product (within 3 months) did not cause any undesirable symptoms, such as redness, swelling, rash. In addition, 20 of 20 subjects reported no uncomfortable sensations, i.e. itching, burning or tingling.

Based on the conducted research, it was found that when applied as intended, **5AR roots restrain scalp lotion** product is well tolerated by the scalp. The above opinion does not apply to people who are allergic to any of the ingredients of the tested product.

Signed with a qualified electronic signature
Dr Dominika Perron-Płusa - Specialist in Dermatology and Venereology

Instrumental test results – the effect of long-term use of the product

1. Trichoscan HD 4.0

Equipment	Trichoscan HD 4.0
Description	Analysis of hair density and thickness, total number of hairs in the examined zone, % of hair in the anagen and telogen phase, % of vellus hair, % of terminal hair and hair growth dynamics according to internal procedure. The aim of the study was to determine the direct impact of the tested product on the hair density and thickness, total number of hairs in the examined zone, % of hair in the anagen and telogen phase, % of vellus hair, % of terminal hair and hair growth dynamics. The test was carried out using specialized measuring equipment.
Kinetics	**T_0** – photo taken before the first application of the product on scalp **$T_{0'}$** – photo taken after 2 days on scalp **T_1** – photo taken after 84 days of use the product on scalp **$T_{1'}$** – photo taken after 86 days of use the product on scalp

1.1. Hair density measurement

Units	[1/cm^2]
Positive result	The increase of parameter over time T_1 is a positive result – it indicates an increase in hair density.

Graph 1. Trichoscan HD 4.0 – mean results of hair density.

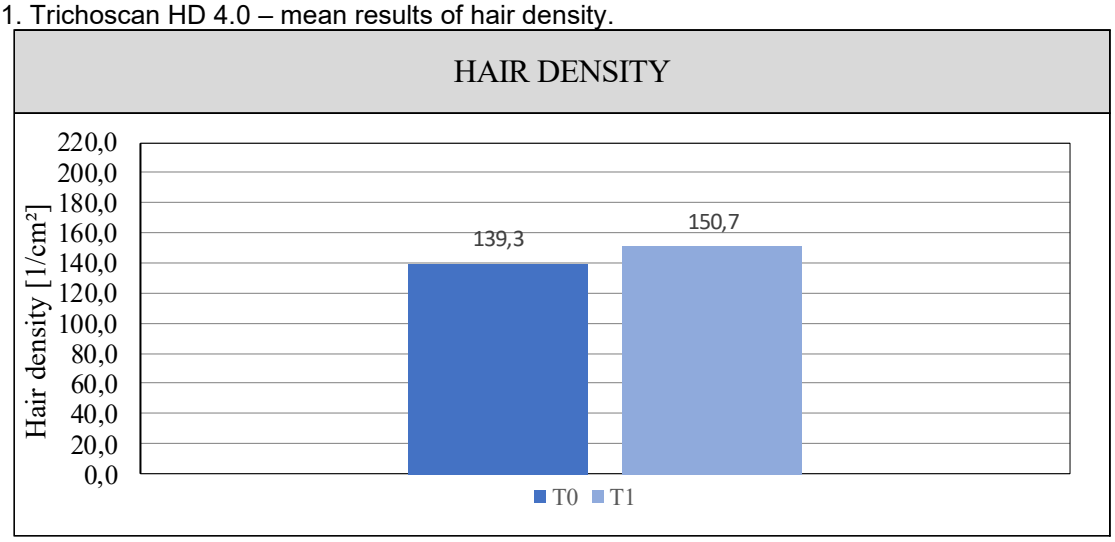


Table 1. Trichoscan HD 4.0 – individual hair density results.

Subject's no.	**T_0**	**T_1**	**Δ (T_1-T_0)**
1.	96,0	100,5	4,5
2.	131,8	171,5	39,7
3.	150,3	155,4	5,1
4.	169,8	201,9	32,1
5.	130,1	127,5	-2,6
6.	147,8	150,3	2,5
7.	155,4	148,7	-6,7
8.	148,7	151,2	2,5
9.	111,5	122,5	11,0
10.	152,0	177,4	25,4

Table 2. Trichoscan HD 4 – results of hair density.

Parameter	**T_0**	**T_1**	**Δ (T_1-T_0)**
Mean	**139,3**	**150,7**	**11,4**
SD	21,0	27,7	14,8
Median	148,3	150,8	4,8
Min	96,0	100,5	-6,7
Max	169,8	201,9	39,7
SEM	6,6	8,7	4,7
Δ% (The change in % calculated in the relation to the initial measurement T_0)			**+8%**
Number of people with improvement			**8 of 10**
It increases hair density by an average of 8% in the group.			

1.2. Hair thickness measurement

Units	[µm]
Positive result	The increase of parameter over time T_1 is a positive result – it indicates an increase in hair thickness.

Graph 2. Trichoscan HD 4.0 – mean results of hair thickness.

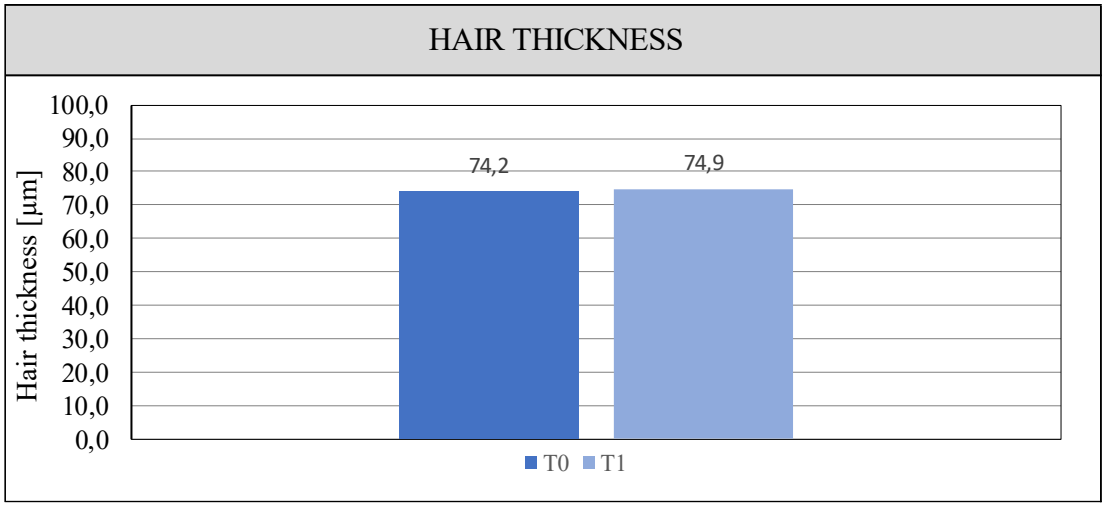


Table 3. Trichoscan HD 4.0 – individual hair thickness results.

Subject's no.	**T_0**	**T_1**	**Δ (T_1-T_0)**
1.	77,0	80,7	3,7
2.	70,1	68,8	-1,3
3.	70,4	72,9	2,5
4.	71,7	72,7	1,0
5.	75,2	76,1	0,9
6.	78,7	79,7	1,0
7.	73,4	75,9	2,5
8.	72,9	70,0	-2,9
9.	71,7	69,4	-2,3
10.	80,4	82,5	2,1

Table 4. Trichoscan HD 4 – results of hair thickness.

Parameter	**T_0**	**T_1**	**Δ (T_1-T_0)**
Mean	**74,2**	**74,9**	**0,7**
SD	3,4	4,7	2,1
Median	73,2	74,4	1,0
Min	70,1	68,8	-2,9
Max	80,4	82,5	3,7
SEM	1,1	1,5	0,7
Δ% (The change in % calculated in the relation to the initial measurement T_0)			**1%**
Number of people with improvement			**7 of 10**
It increases hair thickness by an average of 1% in the group.			

1.3. Percentage of hair in the anagen phase

Units	[%]
Positive result	The increase of parameter over time $T_{1'}$ is a positive result – it indicates increase in the amount of hair in the anagen phase.

Graph 3. Trichoscan HD 4.0 – mean results of percentage of hair in the anagen phase.

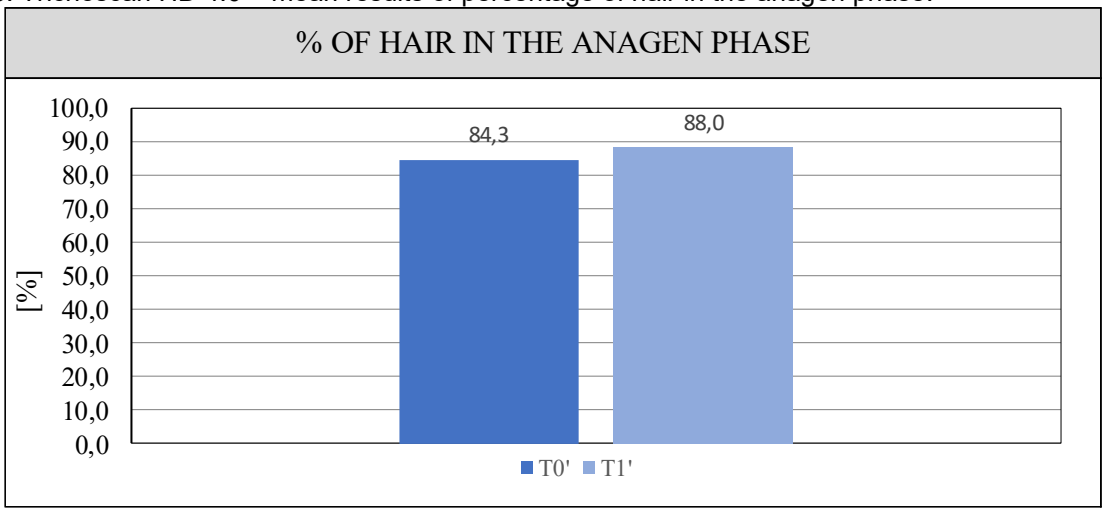


Table 5. Trichoscan HD 4.0 – individual percentage of hair in the anagen phase results.

Subject's no.	**$T_{0'}$**	**$T_{1'}$**	**Δ ($T_{1'}$-$T_{0'}$)**
1.	94,7	69,6	-25,1
2.	82,2	88,8	6,6
3.	81,3	90,3	9,0
4.	77,0	84,9	7,9
5.	91,6	96,9	5,3
6.	84,8	89,2	4,4
7.	86,2	94,2	8,0
8.	84,8	92,5	7,7
9.	85,8	86,5	0,7
10.	74,3	87,1	12,8

Table 6. Trichoscan HD 4 – results of percentage of hair in the anagen phase.

Parameter	**$T_{0'}$**	**$T_{1'}$**	**Δ ($T_{1'}$-$T_{0'}$)**
Mean	**84,3**	**88,0**	**3,7**
SD	5,8	7,0	10,1
Median	84,8	89,0	7,2
Min	74,3	69,6	-25,1
Max	94,7	96,9	12,8
SEM	1,8	2,2	3,2
Δ (The change calculated in the relation to the initial measurement $T_{0'}$)			**+3,7 pts %**
Number of people with improvement			**9 of 10**
It increases the amount of hair in the anagen phase by an average of 3,7 pts % in the group.			

1.4. Percentage of hair in the telogen phase

Units	[%]
Positive result	The decrease of parameter over time $T_{1'}$ is a positive result – it indicates decrease in the amount of hair in the telogen phase.

Graph 4. Trichoscan HD 4.0 – mean results of percentage of hair in the telogen phase.

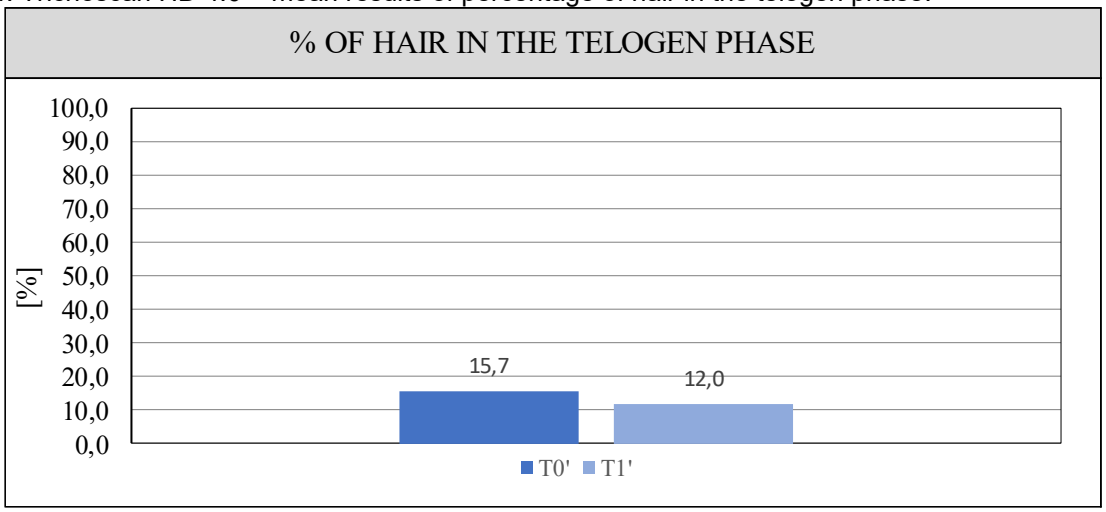


Table 7. Trichoscan HD 4.0 – individual percentage of hair in the telogen phase results.

Subject's no.	**$T_{0'}$**	**$T_{1'}$**	**Δ ($T_{1'}$-$T_{0'}$)**
1.	5,3	30,4	25,1
2.	17,8	11,2	-6,6
3.	18,7	9,7	-9,0
4.	23,0	15,1	-7,9
5.	8,4	3,1	-5,3
6.	15,2	10,8	-4,4
7.	13,8	5,8	-8,0
8.	15,2	7,5	-7,7
9.	14,2	13,5	-0,7
10.	25,7	12,9	-12,8

Table 8. Trichoscan HD 4 – results of percentage of hair in the telogen phase.

Parameter	**$T_{0'}$**	**$T_{1'}$**	**Δ ($T_{1'}$-$T_{0'}$)**
Mean	**15,7**	**12,0**	**-3,7**
SD	5,8	7,0	10,1
Median	15,2	11,0	-7,2
Min	5,3	3,1	-12,8
Max	25,7	30,4	25,1
SEM	1,8	2,2	3,2
Δ (The change calculated in the relation to the initial measurement $T_{0'}$)			**-3,7 pts %**
Number of people with improvement			**9 of 10**
It decreases the amount of hair in the telogen phase by an average of 3,7 pts % in the group.			

1.5. The ratio of vellus hair

Units	[%]
Positive result	The increase of parameter over time T_1 is a positive result – it indicates increase the ratio of vellus hair.

Graph 5. Trichoscan HD 4.0 – mean results of the ratio of vellus hair.

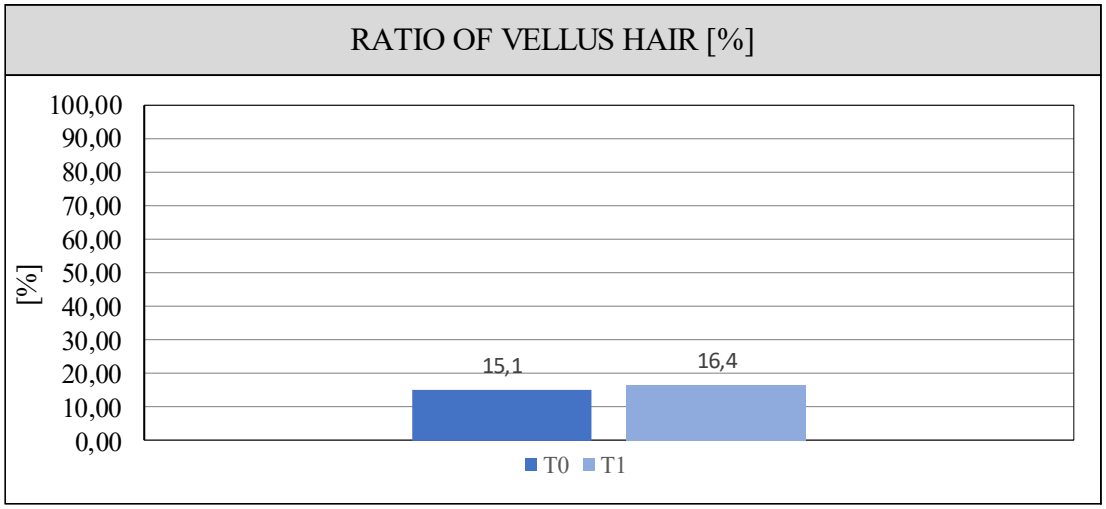


Table 9. Trichoscan HD 4.0 – individual ratio of vellus hair results.

Subject's no.	**T_0**	**T_1**	**Δ (T_1-T_0)**
1.	8,8	9,2	0,4
2.	17,9	22,7	4,8
3.	12,9	19,6	6,7
4.	15,4	17,2	1,8
5.	20,8	11,3	-9,5
6.	20,0	20,8	0,8
7.	15,8	11,4	-4,4
8.	17,6	19,0	1,4
9.	14,4	17,2	2,8
10.	7,2	15,2	8,0

Table 10. Trichoscan HD 4 – results of the ratio of vellus hair.

Parameter	**T_0**	**T_1**	**Δ (T_1-T_0)**
Mean	**15,1**	**16,4**	**1,3**
SD	4,2	4,3	4,9
Median	15,6	17,2	1,6
Min	7,2	9,2	-9,5
Max	20,8	22,7	8,0
SEM	1,3	1,3	1,5
Δ (The change calculated in the relation to the initial measurement T_0)			**+1,3 pts %**
Number of people with improvement			**8 of 10**
It increases the ratio of vellus hair by an average of 1,3 pts % in the group.			

1.6. The ratio of terminal hair

Units	[%]
Positive result	The decrease of parameter over time T_1 is a positive result – it indicates decrease the ratio of terminal hair.

Graph 6. Trichoscan HD 4.0 – mean results of the ratio of terminal hair.

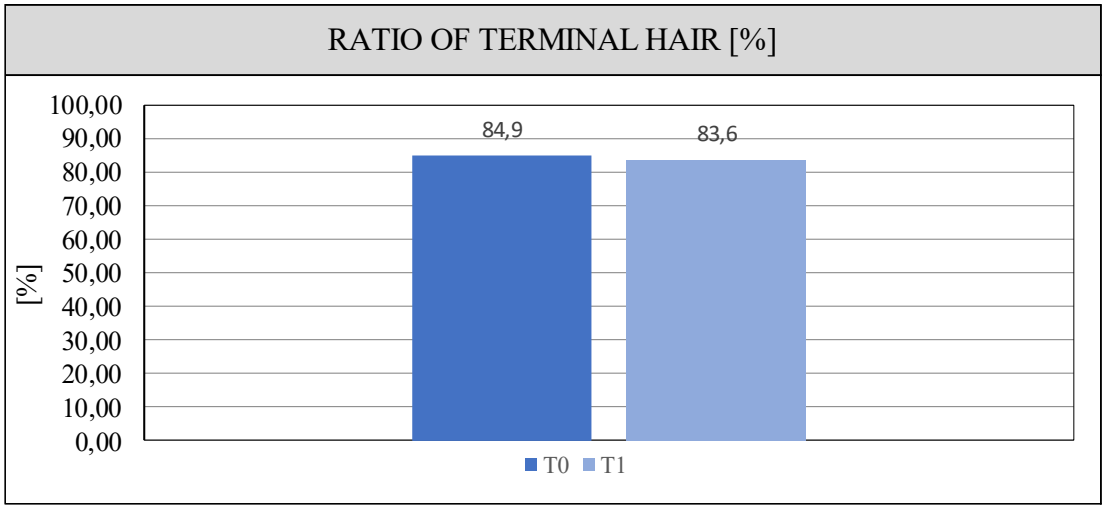


Table 11. Trichoscan HD 4.0 – individual ratio of terminal hair results.

Subject's no.	T_0	T_1	Δ (T_1-T_0)
1.	91,2	90,8	-0,4
2.	82,1	77,3	-4,8
3.	87,1	80,4	-6,7
4.	84,6	82,8	-1,8
5.	79,2	88,7	9,5
6.	80,0	79,2	-0,8
7.	84,2	88,6	4,4
8.	82,4	81,0	-1,4
9.	85,6	82,8	-2,8
10.	92,8	84,8	-8,0

Table 12. Trichoscan HD 4 – results of the ratio of terminal hair.

Parameter	**T_0**	**T_1**	**Δ (T_1-T_0)**
Mean	**84,9**	**83,6**	**-1,3**
SD	4,2	4,3	4,9
Median	84,4	82,8	-1,6
Min	79,2	77,3	-8,0
Max	92,8	90,8	9,5
SEM	1,3	1,3	1,5
Δ (The change calculated in the relation to the initial measurement $T_{0'}$)			**-1,3 pts %**
Number of people with improvement			**8 of 10**
It decreases the ratio of terminal hair by an average of 1,3 pts % in the group.			

1.7. Total number of hair in the examined zone

Units	[-]
Positive result	The increase of parameter over time T_1 is a positive result – it indicates in the total number of hair.

Graph 7. Trichoscan HD 4.0 – mean results of total number of hair in the examined zone.

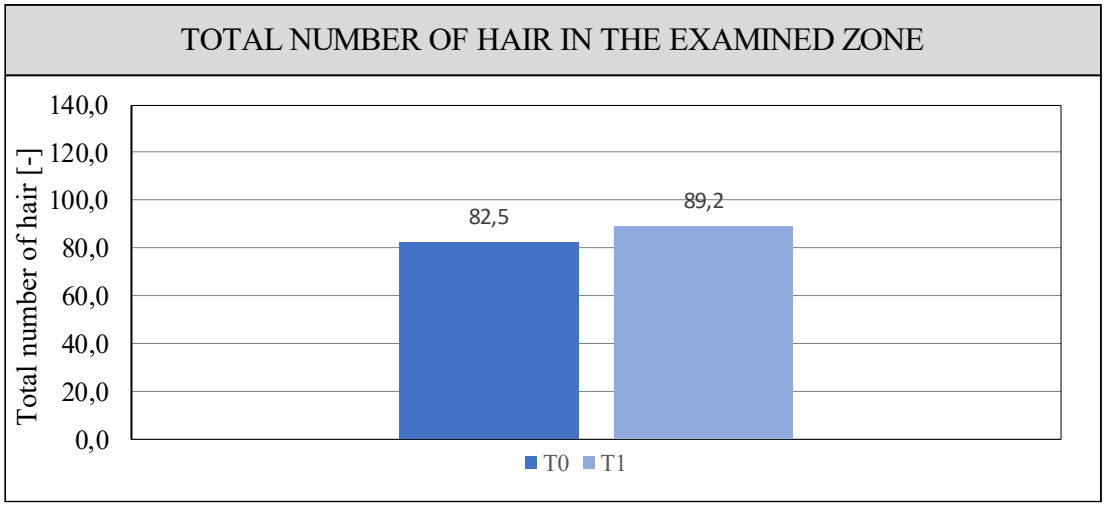


Table 13. Trichoscan HD 4.0 – individual total number of hair in the examined zone results.

Subject's no.	**T_0**	**T_1**	**Δ (T_1-T_0)**
1.	57,0	59,5	2,5
2.	78,0	101,5	23,5
3.	89,0	92,0	3,0
4.	100,5	119,5	19,0
5.	77,0	75,5	-1,5
6.	87,5	89,0	1,5
7.	92,0	88,0	-4,0
8.	88,0	89,5	1,5
9.	66,0	72,5	6,5
10.	90,0	105,0	15,0

Table 14. Trichoscan HD 4 – results of total number of hair in the examined zone.

Parameter	**T_0**	**T_1**	**Δ (T_1-T_0)**
Mean	**82,5**	**89,2**	**6,7**
SD	12,4	16,4	8,8
Median	87,8	89,3	2,8
Min	57,0	59,5	-4,0
Max	100,5	119,5	23,5
SEM	3,9	5,2	2,8
Δ% (The change in % calculated in the relation to the initial measurement T_0)			**+8%**
Number of people with improvement			**8 of 10**
It increases the total number of hair in the examined zone by an average of 8% in the group.			

1.8. Hair growth dynamics

Units	[-]
Positive result	The increase of parameter over time ($T_{1'}$-$T_{1'}$) is a positive result – it indicates an increase in the dynamics of hair growth.

Graph 8. Trichoscan HD 4.0 – mean results of hair growth dynamics.

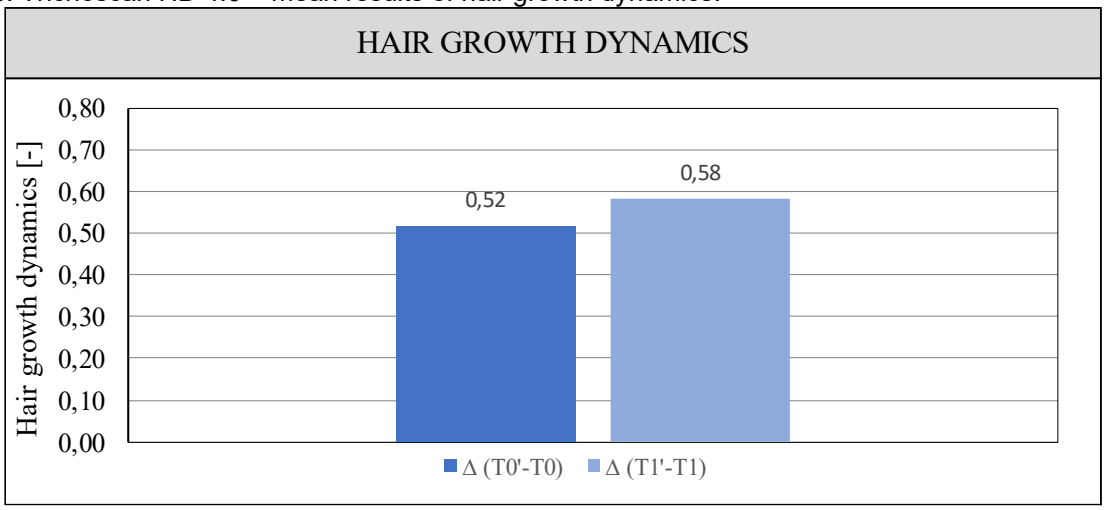


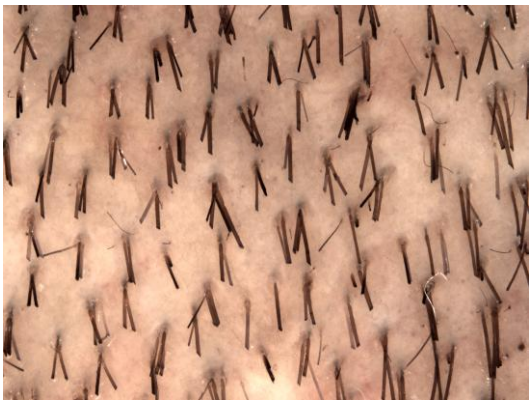
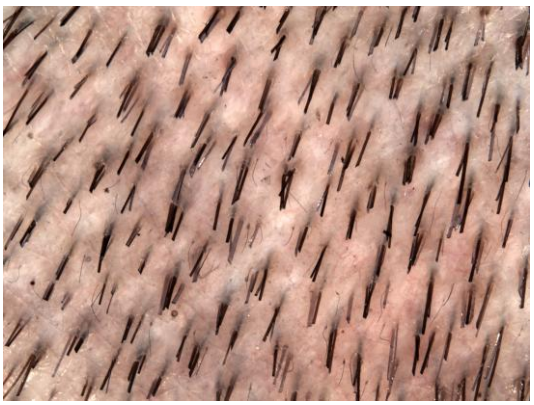
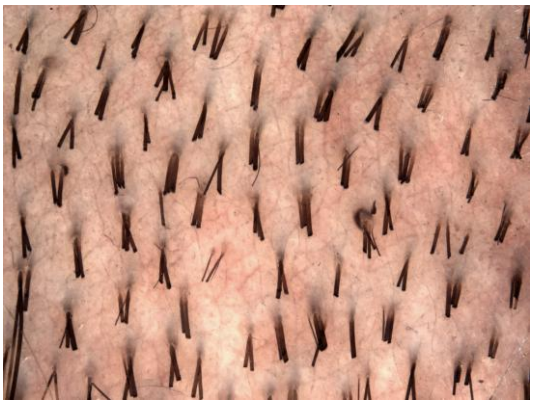
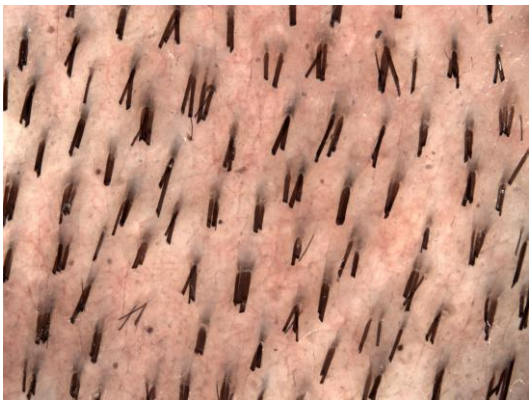
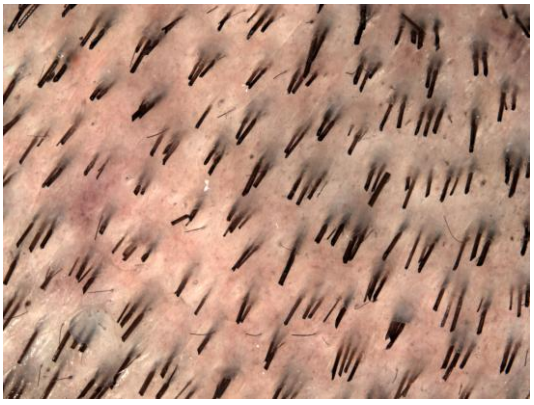
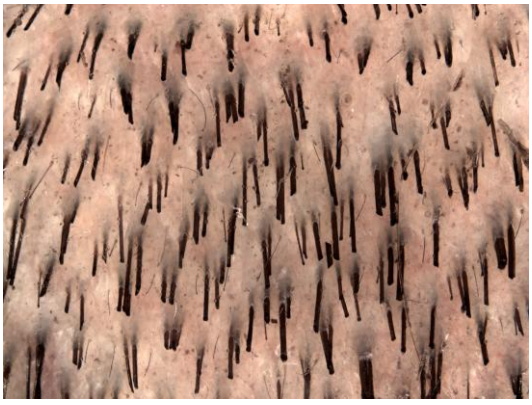
Table 15. Trichoscan HD 4.0 – individual hair growth dynamics results.

Subject's no.	T_0	$T_{0'}$	T_1	$T_{1'}$	Δ ($T_{0'}$-T_0)	Δ ($T_{1'}$-T_1)	ΔΔ (($T_{1'}$-T_1)- ($T_{0'}$-T_0))
1.	0,68	1,41	0,69	1,09	0,73	0,40	-0,33
2.	0,70	1,25	0,88	1,50	0,55	0,62	0,07
3.	0,95	1,23	0,91	1,42	0,28	0,51	0,23
4.	0,73	1,15	0,87	1,40	0,42	0,53	0,11
5.	1,01	1,66	1,16	1,89	0,65	0,73	0,08
6.	0,83	1,27	0,79	1,31	0,44	0,52	0,08
7.	0,76	1,32	0,81	1,47	0,56	0,66	0,10
8.	1,06	1,67	0,84	1,62	0,61	0,78	0,17
9.	0,97	1,48	1,08	1,59	0,51	0,51	0,00
10.	0,68	1,11	0,82	1,39	0,43	0,57	0,14

Table 16. Trichoscan HD 4 – results of hair growth dynamics.

Parameter	Δ ($T_{0'}$-T_0)	Δ ($T_{1'}$-T_1)	ΔΔ (($T_{1'}$-T_1)- ($T_{0'}$-T_0))
Mean	**0,52**	**0,58**	**0,07**
SD	0,12	0,11	0,14
Median	0,53	0,55	0,09
Min	0,28	0,40	-0,33
Max	0,73	0,78	0,23
SEM	0,04	0,03	0,05
ΔΔ% (The change in % calculated in the relation to the initial measurement T_0)			**+13%**
Number of people with improvement			**8 of 10**
It increases the hair growth dynamics by an average of 13% in the group.			

1.9. Photos before and after product use.

Subject	T_0	T_1
3.		
4.		
6.		
10.		

SUMMARY

Based on the conducted research, the following can be confirmed **5AR roots restrain scalp lotion:**

1. It was well tolerated because in case 20 of 20 subjects it did not cause irritation, redness and allergic reactions and left no discomfort.

2. It fulfilled the expectations of the subjects in terms of organoleptic qualities, i.e.:
    - Has the proper consistency;
    - Has a pleasant fragrance with proper intensity;
    - It spreads easily.

3. Used regularly for 3 months (according to the method of use provided by the manufacturer) showed a positive effect on the scalp. Based on the subjective feelings reported by the subjects, the following declarations are confirmed:
    - Soothes and pleasantly cares for the scalp (reduces tightness);
    - It makes hair look thicker;
    - It makes hair appear thicker at the roots;
    - Helps visually increase hair density;
    - It helps reduce the appearance of thinning hair;
    - It makes thinning areas less noticeable.

Based on the conducted instrumental tests, the following was found about the tested product **5AR roots restrain scalp lotion** used regularly for 3 months:

- increases hair density by an average of 8% in the group;
- increases hair thickness by an average of 1% in the group;
- increases the amount of hair in the anagen phase by 3,7 pts % on average in the group;
- decreases the amount of hair in the telogen phase by 3,7 pts % on average in the group;
- increases the ratio of vellus hair by 1,3 pts % on average in the group;
- decreases the ratio of terminal hair by 1,3 pts % on average in the group;
- increases the total number of hair in the examined zone by an average of 8% in the group;
- increases hair growth dynamics by 13% on average in the group;
- improves the appearance and condition of the scalp and hair.

Based on the conducted in-use and instrumental tests, the following was found about the tested product **5AR roots restrain scalp lotion** can be recommended for care of hair and scalp regardless of its type.

Done on:	Developed by:	Authorized by:
27.10.2026	GBA Polska Employee no. 2766	GBA Polska Employee no. 2767

Authorized by:
Dermatologist:

Signed by /
Podpisano przez:

Dominika
Aleksandra
Perron-Płusa

Date / Data:
2026-10-28 23:10

Dr Dominika Perron-Płusa - Specialist in Dermatology and Venereology

Signed with a qualified electronic signature