



Special
chemicals

SCH Actives™ Hair React

Actives for the skin



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01 Introduction



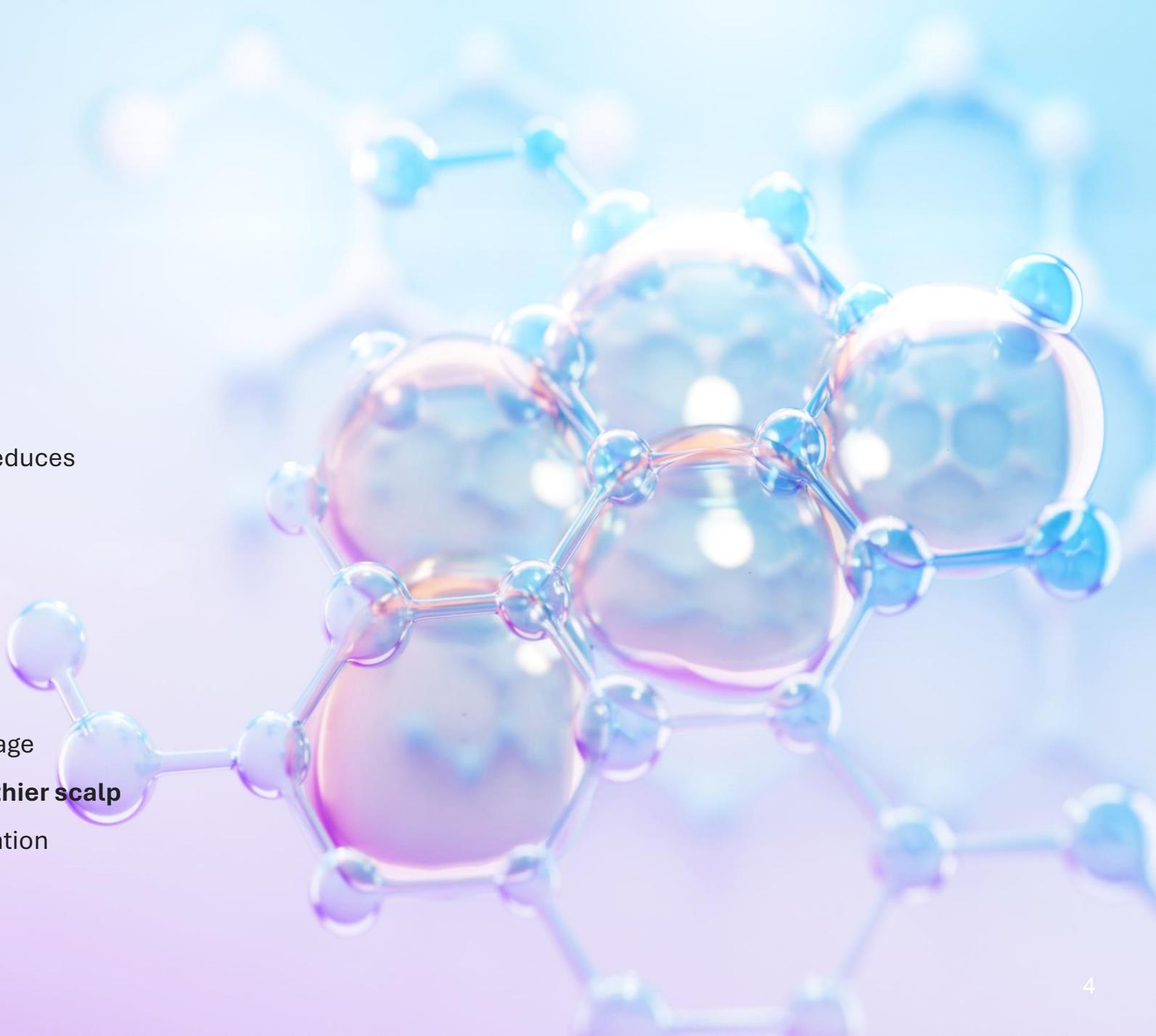
01

Introduction

SCH Actives™ Hair React is a hair care active that stimulates hair growth, strengthens the hair fiber, reduces hair loss, and protects the scalp.

Main activities

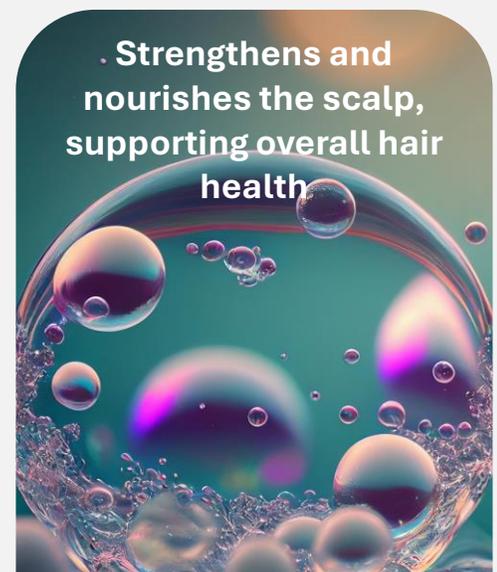
- Stimulates **hair growth**
- **Reduces hair loss** by improving follicle anchorage
- Strengthens the hair fiber and promotes a **healthier scalp**
- Protects against **oxidative stress** and inflammation



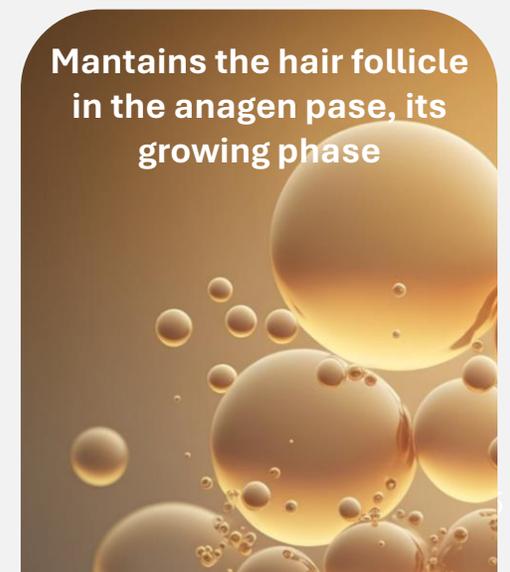


01 Composition

INGREDIENT	%	FUNCTION
Aqua	Up to 100	Solvent
Xanthan gum	0,4 – 0,6	Thickening agent
Biotinoyl tripeptide-1	0,01	Active
Apigenin	0,01	Active
Propanediol	4 - 6	Preservative
1,2-hexanediol	0,8 – 1,2	Preservative
Caprylyl glycol	0,8 – 1,2	Preservative



Strengthens and nourishes the scalp, supporting overall hair health



Maintains the hair follicle in the anagen phase, its growing phase



02

Ingredients



02 Ingredients

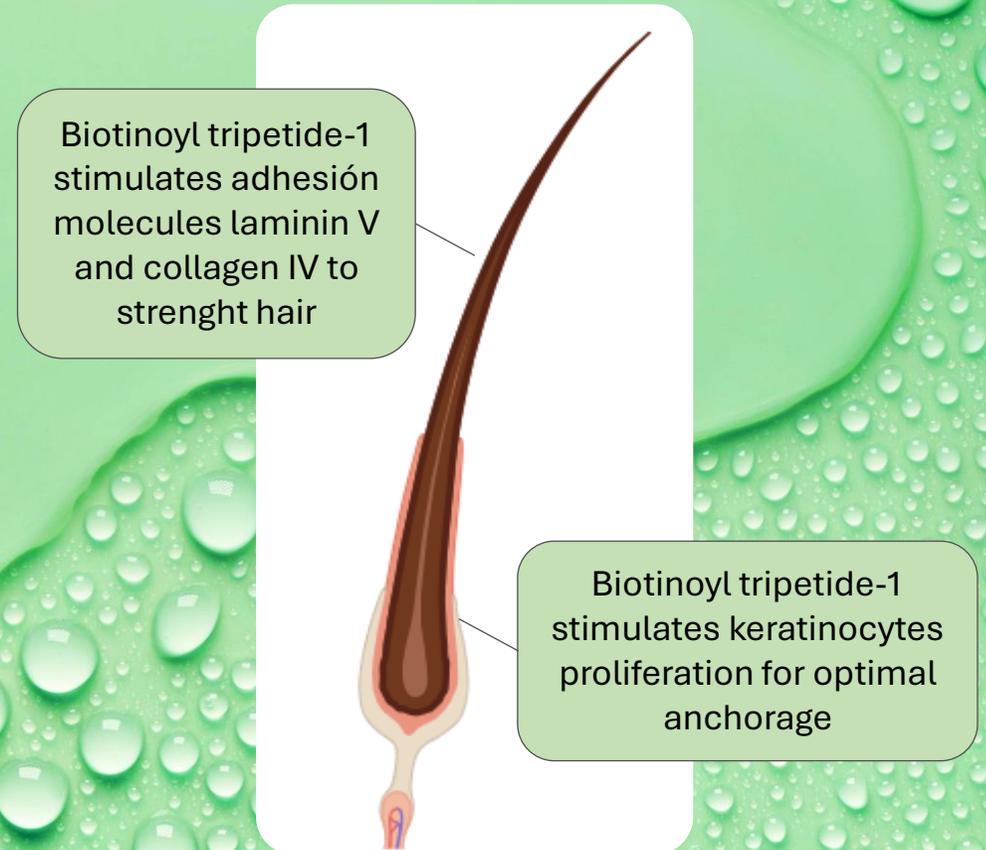
1. Biotinoyl tripeptide-1

Hair Growth Promoter / Strengthener / Anti-aging

Biotinoyl tripeptide-1 is a **synthetic peptide linked to biotin**, designed to enhance hair growth and strengthen hair follicles. It combines the nourishing effects of biotin with the stimulatory properties of peptides.

This peptide promotes hair growth by extending the anagen (growth) phase of hair follicles. It **stimulates keratin production**, crucial for hair strength and structure, and **enhances the anchoring** of hair fibers, reducing hair loss.

It **improves scalp health** by increasing blood flow and nutrient delivery to hair follicles, promoting thicker, healthier hair. Overall, Biotinoyl tripeptide-1 is a powerful ingredient that promotes hair growth, strengthens hair follicles, and provides anti-aging benefits, making it an essential component in advanced haircare and skincare products.





Apigenin contained in the active ingredient improves blood irrigation to nourish papilla

02 Ingredients

2. Apigenin

Antioxidant / Anti-inflammatory / Hair Growth Promoter

Apigenin is a natural flavonoid found in plants like parsley, chamomile, and celery, known for its potent **antioxidant and anti-inflammatory properties**.

It promotes hair growth by **enhancing the anagen (growth) phase of hair follicles**. It stimulates dermal papilla cell proliferation and increases VEGF expression, **improving blood circulation and nutrient delivery** to hair follicles for stronger, healthier hair.

Overall, apigenin is a multifunctional ingredient providing antioxidant, anti-inflammatory, and hair growth-promoting benefits, essential for advanced haircare formulations.



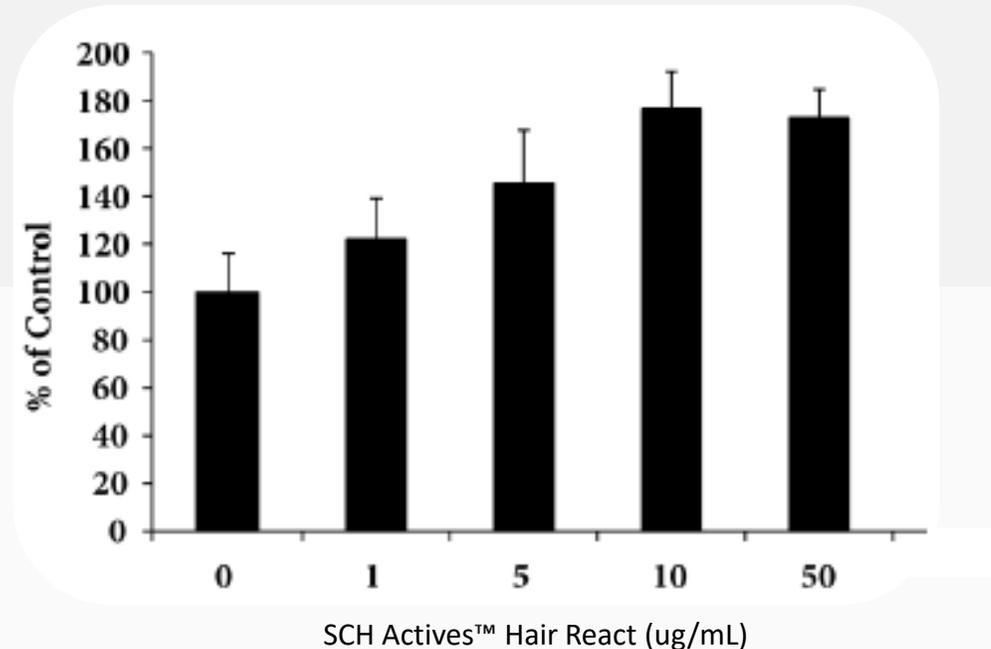
03 Studies

520 ml
3.3 ORB



03 SCH Actives™ Hair React containing Biotynoyl tripeptide-1 stimulates keratinocyte proliferation

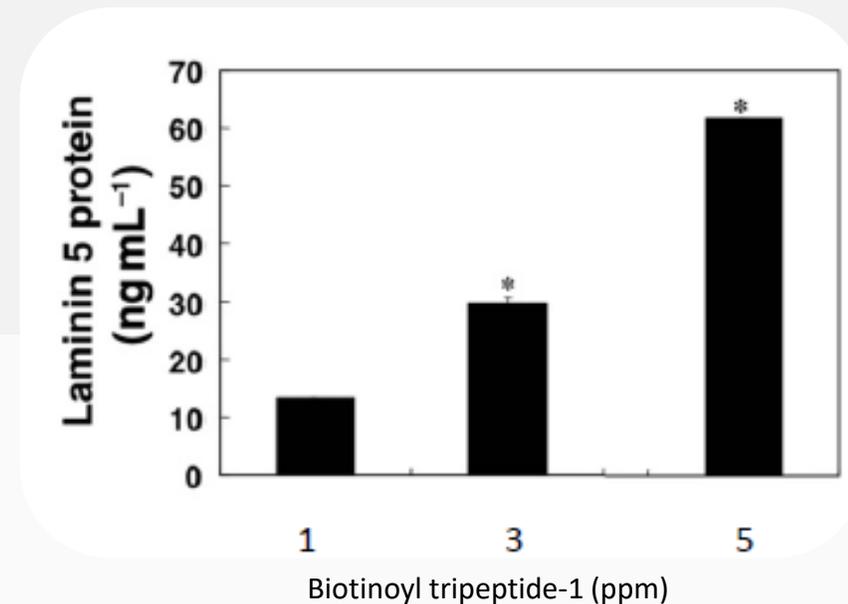
Hair bulb keratinocyte proliferation ensures **optimal hair anchorage**. Biotynoyl tripeptide-1 induced keratinocyte proliferation rate. Various concentrations of peptide were applied to HaCaT cells cultured for 24 hours in serum-free medium and checked the cell proliferation rate using MTT.





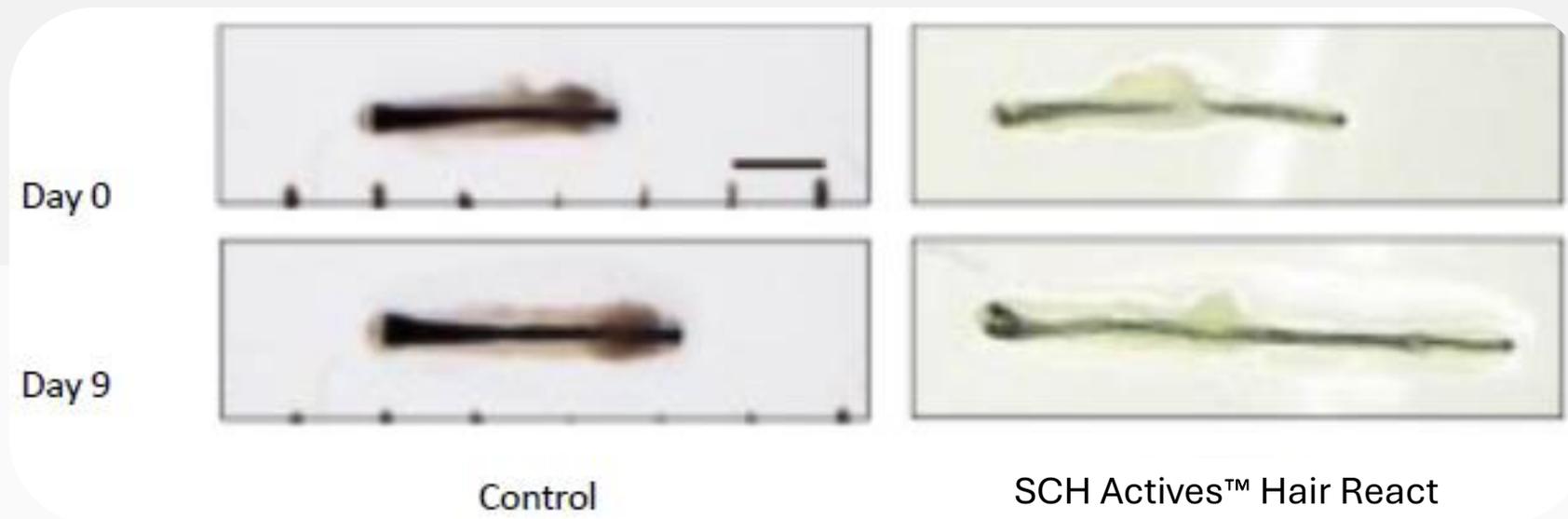
03 SCH Actives™ Hair React stimulates laminin 5 expression in human keratinocytes

SCH Actives™ Hair React by stimulating laminin 5 helps to hair strength. Human keratinocytes were cultured for 24 h in a mixture of Dulbecco's modified Eagle's medium with SCH Actives™ Hair React. Laminin 5 protein secreted into the medium was measured by means of an ELISA kit.



03 Changes in hair shaft lengths over time

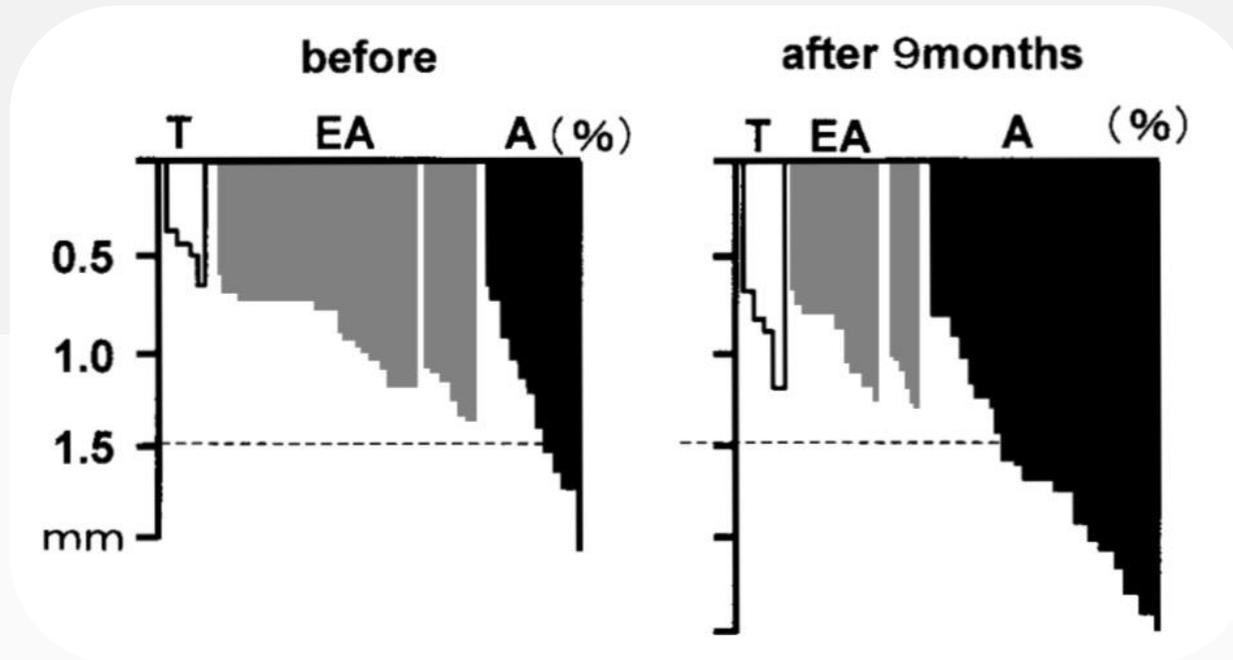
To assess the role of **SCH Actives™ Hair React** on anagen hair follicles, lower anagen hair follicles micro-dissected from healthy human scalps were cultured with 1 μ M SCH Actives™ Hair React for 9 days. SCH Actives™ Hair React treatment significantly **increased hair elongation** relative to untreated control follicles.





03 Effect of SCH Actives™ Hair React treatment on both composition of phases of hair follicle in hair cycle and follicle length

Treatment with 5 ppm SCH Actives™ Hair React **increases % of follicles in anagen phase and increases follicle length**. The abscissa in the graph below shows composition (%) of phases of hair follicle in the hair cycle and the ordinate shows follicle length (mm).





04

Specifications





05 Technical specifications

CHARACTERISTIC	SPECIFICATION
Aspect	Transparent liquid
Color	Colourless
Odor	Characteristic
Solubility	Soluble in water
Dosage (%)	3 – 5
ISO 16128	NOI: 0,9799 NI: 0,9299
Regulatory status	
Europe	OK
China	NOT COMPLIANT
USA	OK





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