



$CAPIXYL^{TM}$

ANTI-AGING HAIR CARE COMPLEX

Biomimetic peptide combined with a red clover extract

For stronger and thicker hair and lashes



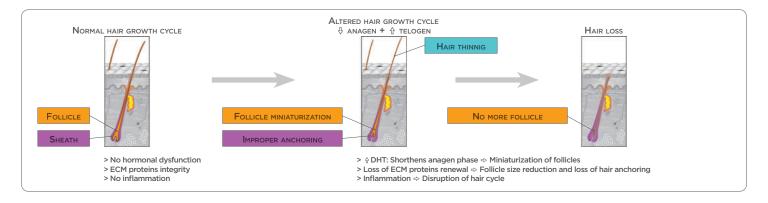


CAPIXYL[™] IS AN INNOVATIVE COMPLEX OF BIOMIMETIC PEPTIDE COMBINED WITH A RED CLOVER EXTRACT. IT TARGETS THE MAIN CAUSES OF HAIR LOSS, PROVIDING FULLER AND THICKER HAIR.

HAIR GROWTH CYCLE

The importance of hair in our lives cannot be overstated. Whether men or women lose their hair, they lose much more than their natural, youthful appearance. People also lose their self-esteem and self-confidence associated with healthy looking hair. Hair loss also, called alopecia, is a common problem affecting both men and women.

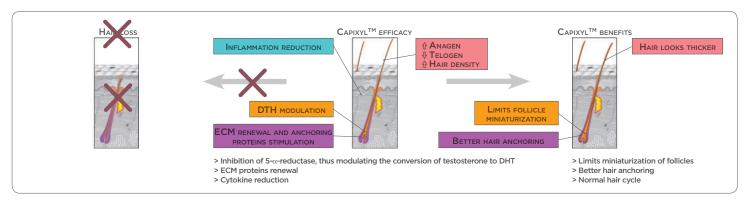
Normal hair follicle is surrounded by healthy connective tissue and dermal papilla, and has minimal or absence of inflammation nor oxidative stress. Hair loss sufferers will most of the time have the hair growth cycle disrupted by an increase of dihydrotestosterone (DHT) hormone, loss of connective tissue integrity surrounding the hair follicle, and an increase of the inflammatory process and oxidative stress in the scalp. With age, the decrease number and size of hair follicles in the scalp will also lead to thinner hair and an increase in hair loss.



SYNERGISTIC ACTION OF A PEPTIDE AND RED CLOVER EXTRACT

Capixy I^{TM} is a biomimetic peptide (acetyl tetrapeptide-3) combined with a red clover extract rich in Biochanin A. Capixy I^{TM} efficacy is based on the association and synergistic action of its two ingredients.

CapixylTM has a direct action on 5- α -reductase which modulates dihydrotestosterone (DHT) to help prevent hair miniaturization. It improves ECM proteins integrity in dermal papilla for a better hair anchoring and reduces damages caused by inflammation, providing fuller, thicker and healthier looking hair.

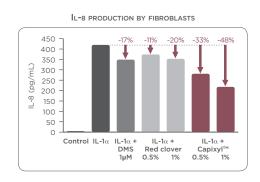


TARGETING THE CAUSES OF HAIR LOSS

Inflammation reduction

IL-1 α mimics the inflamation process in human fibroblasts and induces IL-8, a pro-inflamatory cytokine.

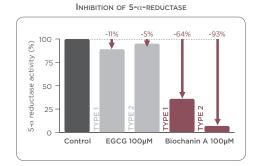
Capixy I^{TM} helps decrease pro-inflammatory cytokines with a synergistic action compared to red clover extract alone.



DHT modulation via $5-\alpha$ -reductase activity

DHT is formed by the action of $5\text{-}\alpha\text{-reductase}$ on testosterone. DHT causes hair loss by shortening the growth cycle, producing progressively shorter and finer hair. This is the study of the capacity of Biochanin A to inhibit the $5\text{-}\alpha$ reductase activity in comparison with a well known $5\text{-}\alpha$ reductase inhibitor EGCG (epigallocatechin gallate a potent antioxidant found in tea).

Biochanin A inhibits 5-α-reductase activity.



ECM renewal and anchoring improvement

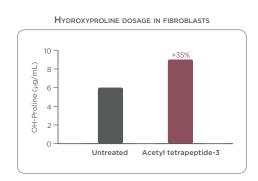
Hair follicles size is determined by:

- The volume of its dermal papilla;
- The volume of the extracellular matrix.

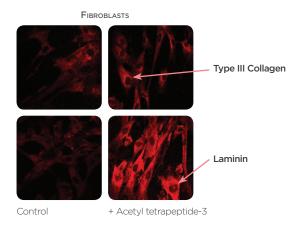
Healthy dermal papilla will produce good ECM proteins such as collagen type III and anchoring fibers such as laminin and collagen VII which will favor a good hair anchoring in the bulb surrounding tissue. If improper ECM renewal, hair will eventually lack vigor and will thin. Cycle after cycle, the follicle becomes smaller and finally, miniaturized and fall.

Proline is an amino acid constituent of collagen, therefore it represents a good indication of newly synthesized collagen.

Acetyl tetrapeptide-3 stimulates collagen production for better ECM integrity leading to a better anchoring.



Quantification of laminin, type III collagen synthesis induced by Acetyl tetrapeptide-3 on fibroblasts. It has been demonstrated that molecules which have an activity on these ECM proteins stimulation, also increase hair follicle size and improve hair anchoring.



60 Fluorescence 40

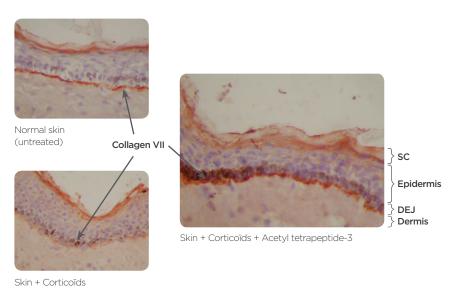
STIMULATION OF ECM PROTEINS SYNTHESIS BY FIBROBLASTS

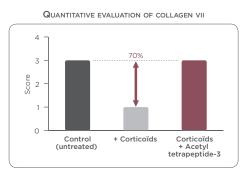
Untreated Acetyl tetrapeptide-3

20

Acetyl tetrapeptide-3 stimulates dermal papilla extracellular matrix proteins, and thus has a direct effect on structures surrounding hair follicles.

Collagen VII is a major constituent of the anchoring fibrils and is located in the basement membrane (DEJ) around the papilla. In this experiment, corticoids are used to induce a decrease in the hair papilla cells growth and ECM protein.



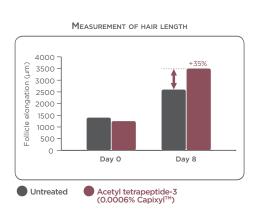


Acetyl tetrapeptide-3 provides a repairing effect at the dermal-epidermal junction level, helping hair anchoring.

IMPROVING HAIR FOLLICLE LENGTH

Human hair follicles in anagen phase are isolated from skin biopsys and cultured with or without Acetyl tetrapeptide-3 for 8 days.

Acetyl tetrapeptide-3 improves by 35% the length in comparison with untreated areas after 8 days of treatment.



itho Canada | 2015-12

PRODUCT DESCRIPTION

INCI NAME

Butylene Glycol (1) (and) Water (2) (and) Dextran (3) (and) Acetyl Tetrapeptide-3 (4) (and) Trifolium Pratense (Clover) Flower Extract (5)

CAS

107-88-0 (1), 7732-18-5 (2), 9004-54-0 (3), 827306-88-7 (4), 85085-25-2 (5)

EINECS

203-529-7 (1), 231-791-2 (2), 232-677-5 (3), - (4), 285-356-7 (5)

APPEARANCE

Transparent, colorless and odorless liquid

FORMULATION

Capixy I^{TM} should be incorporated at the end of the formulation at a temperature of <40°C.

DOSAGE

- Intensive treatment: 5%
- Preventive care: 0.5 2.5%

OPTIMUM pH

4-8

APPLICATIONS

- Hair treatment
- Anti-aging hair care product
- Men hair care product
- Treatment for seasonal hair loss
- Leave-on
- Scalp treatment
- Tonics
- Hair treatment for menopaused women
- Eyelashes

CHINA-COMPLIANT **™***

*Consult us

FEATURES AND BENEFITS

FEATURES	BENEFITS
Unique combinaison: Peptide with botanical active	Stable, easy to work with and performant
Synergistic mechanism of action	Acts on all parameters influencing hair loss
High efficacy	Low dosage (starting at 0.5%)
Better efficacy than the reference molecule	Provides faster results
Clinically proven	Helps provide thicker and fuller hair

ANTI-HAIR LOSS POTION

INGREDIENTS		INCI NAMES	%
А	Water	Water	qsp
	Sodium Phosphate	Sodium Phosphate	1.117
	Citric Acid	Citric Acid	0.715
В	Tinogard Q	Tris (Tetramethylhydroxypiperidinol) Citrate	0.025
	UCON 50-HB-3520	PPG-28-Buteth-35	0.50
	Mirasil DMCO	PEG/PPG - 22/24 Dimethicone	0.50
	Capixyl™	Butylene Glycol (and) Water (and) Dextran (and) Acetyl Tetrapeptide-3 (and) Trifolium Pratense (Clover) Flower Extract	5.00
	Ethanol	Alcohol	20.00
С	Eumulgin HPS	Coceth-7 (and) PPG-1-PEG-9 Lauryl Glycol Ether (and) PEG-40 Hydrogenated Castor Oil	0.60
	Parfum Neva	Fragrance	0.10

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Anti-Aging Hair Care

FIGHT HAIR LOSS WITH CAPIXYL™

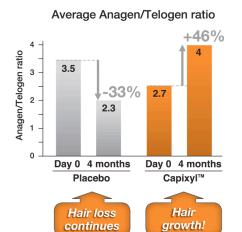
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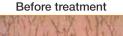
Hair loss sufferers will most of the time have the hair growth cycle disrupted by an increase of dihydrotestosterone (DHT) hormone, loss of connective tissue integrity surrounding the hair follicles and an increase in the inflammatory process in the scalp. Of course, with aging, the decrease number and size of hair follicles in the scalp will also lead to thinner hair shaft and an increase in hair loss.



To reverse the hair loss process, Lucas Meyer Cosmetics has designed a highly innovative active combining a patented four amino acids biomimetic peptide with a red clover extract rich in Biochanin A. CapixyI™ efficacy is based on the combined action of its two ingredients, allowing direct action on DHT preventing the hair cycle to shorten and hair follicle miniaturization, improving the ECM proteins in dermal papilla surrounding hair bulb for better anchoring in the scalp. **CapixyI™** also prevents inflammation which is a contributing factor in hair loss.

CLINICAL TEST RESULTS







After treatment



- ☆ anagen hair density (growth phase)
- ♣ telogen hair density (resting phase)

Clear increase in the number of hair!

Capixyl™ is a clinically proven alternative to address hair loss and boost hair growth!

APPLICATIONS

Applications:

- > Hair regrowth
- > Anti-hair loss
- > Eyelashes
- > Tonics
- > Gray coverage hair treatment
- > Scalp treatment
- > Anti-aging hair care product
- > Lotions

- > Leave-on
- > Extend the life of hair colorant
- > Treatment for seasonal hair loss
- > Hair treatment for menopaused women







