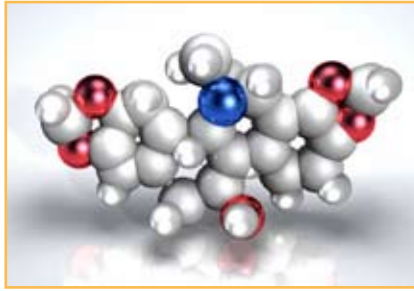


Patent n° WO 2007/029187

KELISOFT™



Chelidonine

Function:

Hair growth minimiser.

Definition:

Chelidonine, a highly purified plant molecule in an excipient.

Properties:

Slows down hair growth which reduces the need to shave as often. Refines hair diameter.
Calms down inflammation after hair removal (shaving, waxing, ...).

Characteristics:

Inhibits the proliferation of the hair bulb cells.
Regulates the production of inflammatory mediators.

Points of interest:

Inflammatory mediators are involved both in the burning feeling after shaving and in the stimulation of hair growth.

INCI Name:

(Check PCPC on-line dictionary for latest INCI name)

KELISOFT™: Butylene Glycol – Chelidonine
KELISOFT™ OS: Octyldodecanol – PPG-15 Stearyl Ether – Sorbitan Oleate – Chelidonine

Applications:

After-shave products, deodorants, emulsions and gels.

Formulation:

KELISOFT™: Water soluble. Incorporate into the formula between 25°C and 80°C, for 2 hours maximum.
KELISOFT™ OS: Liposoluble. Incorporate into the oil phase between 25°C and 80°C, for 2 hours maximum.

Recommended use level:

3% for underarms,
4% for beards and other areas.

Smooth and soft underarms for longer

For a soft kissable face



before



after 2 months



After 2 months, hair growth speed is reduced by **13.5%** and hair section visibly decreased by **14%**, up to **-56%**.

control

Kelisoft™



24 hours after shaving

The end of men's nightmare: with Kelisoft™, the 5 o'clock shadow is now delayed by **3 hours**.

In vivo tests

CLEAN-SHAVEN SKIN EFFECT ON THE BEARD

16 male volunteers aged from 18 to 50 years old with fair skin, dark and thick beard which needs daily shaving. Once daily application of a gel-cream containing 4% Kelisoft™ after shaving for 2 months against placebo.

HAIR GROWTH - Videomicroscopy (n=15)

- Growth speed -12.5%/placebo, p=0.01 up to -28%*
- Shaving delay +3 hours/placebo

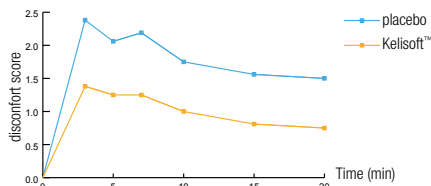
5 O'CLOCK SHADOW - Image Analysis (n=15)

- Intensity of shadow 24h after shaving -28.4%/T0, p<0.05 up to -49%*

* Mean for the 5 best results

CALMING EFFECT

- 0 nothing
- 1 light sensation
- 2 light stinging
- 3 intense stinging
- 4 intense stinging and light burning
- 5 intense stinging and strong burning



Kelisoft™ reduces the hair growth speed, delays the “5 o'clock shadow” by 3 hours and provides a soothing sensation after shaving.

SMOOTHNESS AND SOFTNESS OF THE UNDERARMS

20 female volunteers aged from 18 to 66 years old with fair skin, thick dark hair and shaving exclusively with a manual razor. Twice daily application of a roll-on containing 3% Kelisoft™ under the arms for 2 months against placebo.

HAIR GROWTH - Videomicroscopy and Image Analysis

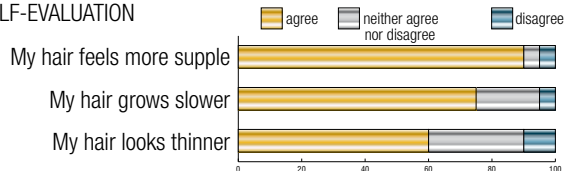
- Growth speed
 - T1 month -7.5%/T0, p<0.04 up to -36%
 - T2 months -13.5%/T0, p<0.01 up to -29%
- Shaving frequency after 2 months
 - -1 shave/month
 - +1 day between 2 shaves

HAIR THICKNESS - Videomicroscopy and Image Analysis

- Hair section after 2 months -14%/T0, p<0.01, up to -56%



SELF-EVALUATION



In just 1 month, Kelisoft™ decreases the growth speed and hair thickness for a visible smooth and soft effect. It also reduces the frequency of shaving.

HAIR GROWTH REDUCTION

GROWTH MODERATING EFFECT

Ex vivo test performed with 4% Kelisoft™ on explants of normal human hair against positive and negative control.

- Hair length after 3 days -79.2%, p<0.05
- Hair length after 7 days -87.9%, p<0.05

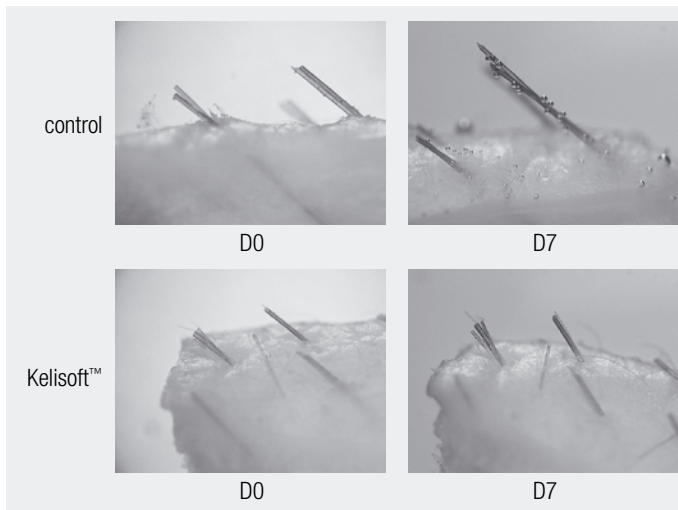
Kelisoft™ slows down hair growth after just 3 days.

CELL PROLIFERATION

In vitro performed with 3% Kelisoft™ on human keratinocytes - Immunolabelling.

- Synthesis of proliferation marker Ki67 -99%, p<0.01

Kelisoft™ inhibits keratinocyte multiplication.



ANTI-INFLAMMATORY PROPERTIES In vitro test performed with 3% Kelisoft™ on human keratinocytes

After stress and contact with Kelisoft™ for 24h - ELISA method

Stress	Release of:	PGE2	IL8	VEGF	TNF-α
UVB		-56%*	-62%*	-44%*	-54%**
Microbial with LPS		-86%*			
Mechanical with TNF-α		-99.8%*			

* p<0.01 ** p<0.05

After contact with Kelisoft™ for 72h - Immunolabelling

- Synthesis of heparanase -38%, p<0.05
- Heparanase is the enzyme responsible for VEGF release via heparan sulfate degradation.

Kelisoft™ decreases the synthesis of inflammatory mediators for a slower hair growth.



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