

Effects of Nano-Lipobelle DN CoQ10 oA on the Growth of Human Hair Follicles in Vitro

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Introduction

Hair grows in cycles. Starting with anagen (the growth phase), the hair follicle and its shaft pass through catagen (regressing phase), telogen (quiescent phase) and finally exogen (shedding phase).

Test product

- Nano-Lipobelle DN CoQ10 oA (0.01%, 0.03%)

Assay

This study was performed in order to find evidence of possible effects on hair elongation in an experimental in vitro assay on isolated hairs. 12 human hair follicles were obtained from skin human fragments (face lifting) by micro dissection. The length and morphology of the hair roots were analyzed.

The hair bulbs were cultivated in culture medium containing the test compound. Control was performed without test

compound. The hair follicle growth of 12 single hair bulbs was followed during 7 days with length measurements and photographs at day 0, day 4 and day 7 for each of the hair bulbs.

Because Coenzyme Q10 is an energy supplier, it has only an impact on fast growing hair that is in the anagen hair growing phase. To select hair bulbs in this phase, the 3 fastest growing and most energy spending hair bulbs were chosen for data analysis.

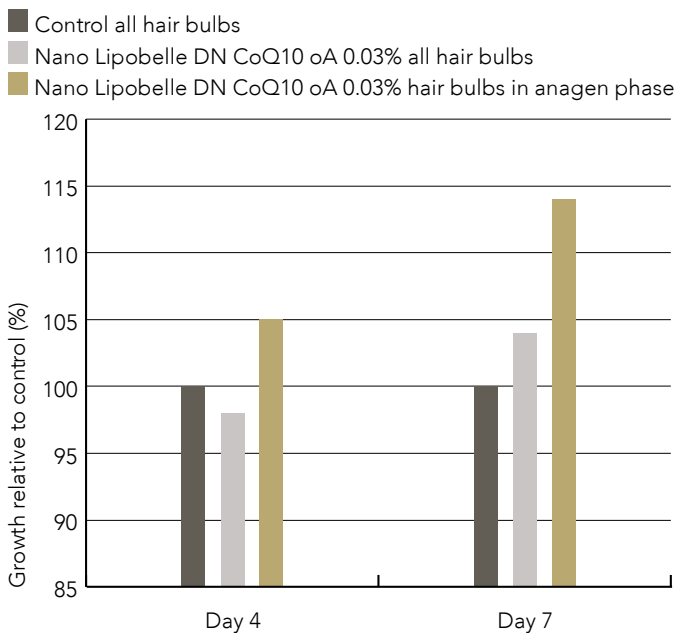
Test parameters

- Hair bulb lengths measurements and photographs

Results

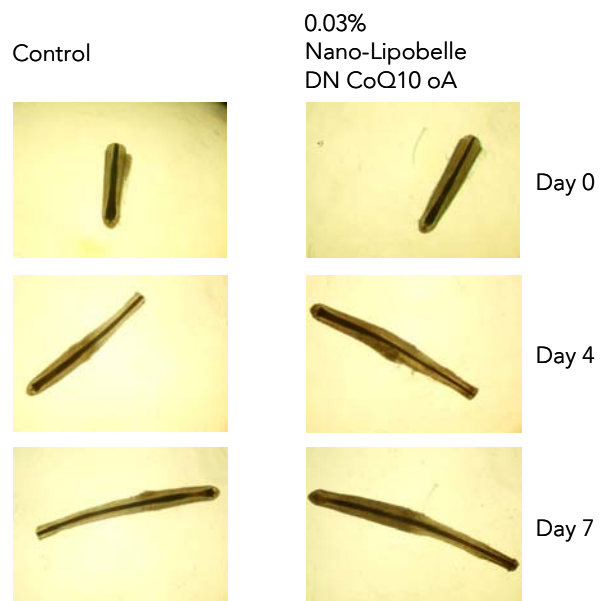
0.03% of Nano-Lipobelle DN CoQ10 oA enhanced the hair growth for 5% within 4 days and 14% within 7 days.

Hair Bulb Growth



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Hair Roots



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