Lipogard

a perfect blend of Q10 and Vitamin E
Q10- a still unbroken trend
Overview

Coenzyme Q are a family of naturally occurring Coenzymes (Q1-Q10). As they are present in most living cells they are also named as Ubiquinone (“ubi” means “all over”).

Q10 is the only one found in human tissue.

Because of their properties Q10 became over the last few years a leading food and cosmetic ingredient.

Q10 can be produced by our body but levels are sharply decreasing with ageing.

2,3 dimethoxy-5 methyl-6 decaprenyl benzoquinone
Co Q10 activity (skin)

- Essential to generate energy (ATP) in the mitochondria
- Acts as a powerful antioxidant and radical scavenger
Cosmetic benefit of Q10

- CoQ10 protects skin surface lipids (SSL) from oxidative stress accelerated mainly by UVA exposure
- CoQ10 is essential for providing energy to the skin cells
- CoQ10 is able to stabilise cell membranes
Vitamin E activity (skin)

- Essential anti oxidant (radical scavenger)
- Increases re-epithelisation
- Anti inflammatory properties
- Vitamin E inhibits MMP1 expression in mature skin

The Chemical Structure of alpha-Tocopherol
Cosmetic benefit of Vitamin E

• Improves skin relief
• Maintain cell membrane integrity and reduce cellular aging
• Increases water retaining capacity of the Stratum corneum
• Accelerates re-epithelisation
• Protect immune function
• Collagen protection

➔ Vitamin E protects the skin against clinical signs of photo aging (Wrinkling; roughness, inflammation; elastosis)
LIPOGARD activity

The well balanced mixture of Q10 and Vitamin E offers in a squalane based formula unique unique activities:

- Lipogard restores the lipid barrier
- Lipogard protects the skin surface lipids (SSL)
- Lipogard improves cell membrane functionality
- Lipogard accelerates cellular ATP production
- Lipogard inhibits Collagen degradation

With the ongoing aging process the biosynthesis of Q10 is reduced, substitution is essential.
LIPOGARD: synergistic activity of Q10 and Vitamin E

But: Depletion of Vitamin E and Q10 after UV irradiation!
But: Depletion of Vitamin E and Q10 with increasing age!
Cosmetic benefit of Lipogard

Vitamin E and CoQ10 are the only known lipophilic antioxidants present in the SSL representing the outermost protection of the skin against oxidative stress:

• Cellular protection leading to healthy skin
• Strengthen the skin barrier function
• Anti wrinkle activity
• Skin energizing

The perfect choice for an powerful anti ageing product
Lipogard- Inhibition of lipid peroxidation *(in vitro)*

While the sample without **LIPOGARD** shows an obviously pink colour, the sample with **LIPOGARD** is considerably paler. The pink colour is a marker for the lipid peroxidation rate.

0.1 % Lipogard
Lipogard 3%- Inhibition of lipoperoxides formation (ex-vivo on human skin)
Customer benefit by using Lipogard

- reliable source of high quality
- ready to use liquid form
- no preservative used in the formula
- only vegetable oils used
- activity proven in several clinical studies
- oil based formula that penetrates easily into the stratum corneum
- easy to combine with other ingredients
- processing either hot (up to 80°C) or cold
- Concentration of 1-3 % for best cost/efficacy results
Important Literature


• U. Hoppe et al., Coenzyme Q10- a cutaneous antioxidant and energizer. Kosmetische Medizin, 1999 Vol. 20 (1), pp 22-25


• Roberta Ricciarelli et al. Age dependent increase of collagenase expression can be reduced by alpha tocopherole via protein kinase C inhibition. Free Radical Biology & Medicine, 1999 Vol. 27 (7/8), pp.729-737

• Coenzyme Q verzögert die natürliche Hautalterung und schützt vor oxidativem Stress. Kosmetische Medizin, 2000 Vol21 (5/6), pp 296-297
Skin care with Lipogard

<table>
<thead>
<tr>
<th>Product type</th>
<th>Function of LIPOGARD</th>
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<tbody>
<tr>
<td>After sun</td>
<td>Substitution of lost Ubiquinone and Vit E</td>
</tr>
<tr>
<td>Age skin care</td>
<td>Substitution of reduced Ubiquinone and Vit E</td>
</tr>
<tr>
<td>Anti-wrinkle</td>
<td>Combination with elastase-inhibitor; anti-free radicals</td>
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<tr>
<td>Sun protection</td>
<td>Protection against lipid peroxidation</td>
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<tr>
<td>Skin energizer/Nutracosmetics</td>
<td>Support of cell metabolism</td>
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Or simply use the Q10 claim to participate the trend