



Gold particles improve bioavailability of actives for faster efficacy.

A unique multifunction gold conjugate releasing:

- COENZYME Q10
- **GLUTATHIONE**

$$H_3C$$
 O
 CH_3
 H_3C
 O
 CH_3
 CH_3



SCH Gluta Gold Q10: a multifunctional antioxidant ingredient.

GOLD

- >100 nm particle size
- Increases bioavailability of actives
- Fast and deep skin penetration

Coenzyme Q10

Full of antioxidant properties that protect the skin from environmental stressors, energizes the skin.

Glutathione

- Powerful, naturally occurring antioxidant that has numerous antiaging benefits.
- Reduces oxidative stress.
- Reduces cell damage.

Gold properties were well described for medical applications:

- Antioxidant and free radical scavenger.
- Anticancer.
- Antiheumatism
- Antimicrobial

Aditional properties supporting gold nanocapsules:

- Specific Surface área and adsorption energy.
- Enables physically powerful bonding to active biomolecules.
- Increases bioavailability of actives.
- Fast and Deep skin penetration.
- Biocompatibility.



Special Chemicals

About Glutathione:

- Master antioxidant defense for cytoprotection.
- Detoxificates reactive oxygen species and toxins.
- Maintains cell redox balance essential for cell function.
- Protects cells from DNA and mitocondrial damage and ensures survival of skin cells.

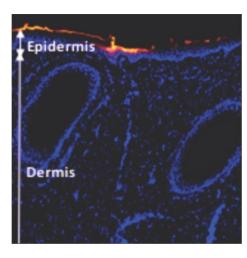
About Coenzyme Q10:

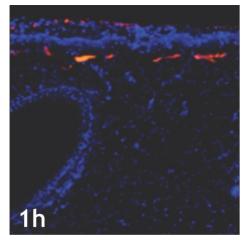
- Oxidative stress result in DNA damage and disorganization in the dermal matrix.
- In skin, Coenzyme Q10 acts as an antioxidant with 10-fold higher levels in the epidermis tan the dermis.

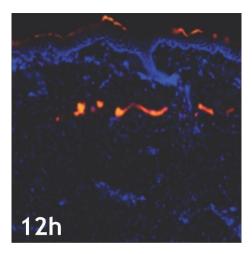
$$H_3C$$
 O
 CH_3
 H_3C
 O
 CH_3
 CH_3



Gold Carrier potentiates the skin penetration of active ingredients.

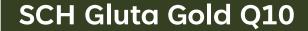






- Confocal microscopy images of skin slices.
- SCH Gluta Gold Q10 was applied into pig skin.
- Presence of SCH gluta Gold Q10 was followed by a fluorescent marker along time.

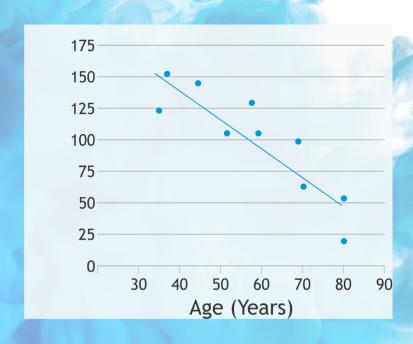






SCH Gluta Gold Q10 fights against the los of Coenzyme Q10.

Q10 level (fmol/ug cholesterol)



- SCH GLUTA GOLD Q10 COMPENSATES Q10-EPIDERMAL LOSS INDUCED BY AGING
- The functional loss of mitochondria explains aging; therefore, restoration of mitochondrial function rejuvenates skin.
- CoQ10 is the most important factor for effective mitochondrial function.

CoQ10 levels decrease in the epidermis between the ages of 30 and 80 years. Values are normalized to the cholesterol content of the samples (Hoppe et al Biofactors 9: 371-378,1999)



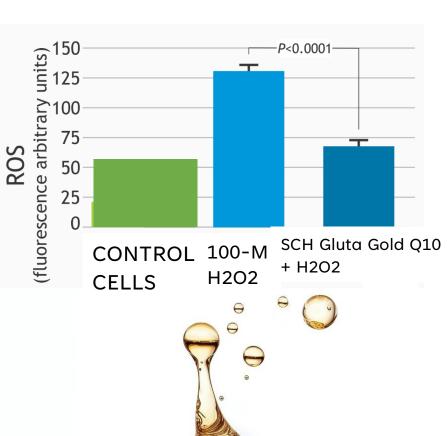
SCH Gluta Gold Q10 inhibits generation of reactive oxidative species (ROS). In Keratinocytes exposed to H2O2.

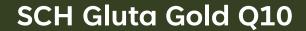
HaCaT keratinocytes showed a significant elevation in ROS immediately after oxidative challenge.

The elevation in ROS is blocked by SCH Gluta Gold Q10. The fluorescence intensity (Ex: 485 nm per Em: 530 nm) of each cell lysate was measured. Intracellular ROS levels are expressed as change in fluorescence intensity per μg protein.





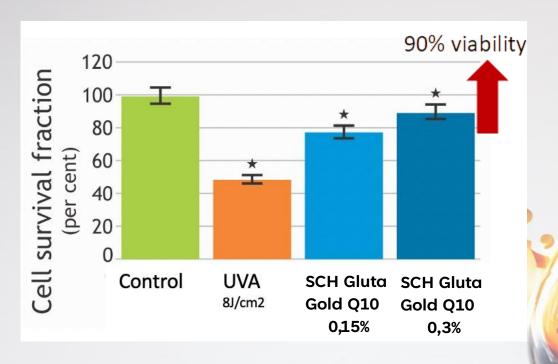




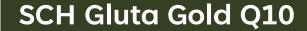


SCH Gluta Gold Q10 protects keratinocyte viability after UV challange.

Cell viability was evaluated through a MTT test a yellow compound that is bioreduced by cells into a purple-coloured formazan product. This conversion is accomplished by NADPH or NADH produced by dehydrogenase enzymes in metabolically active cells.



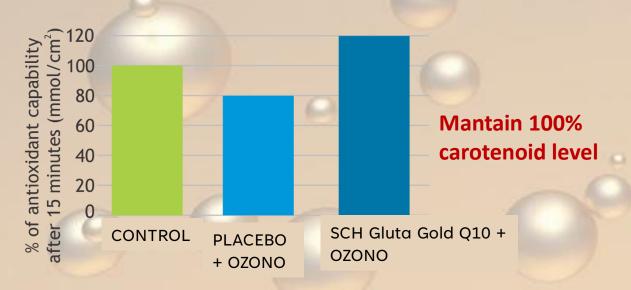
The cells were treated with MTT (1mg/ml) and incubated for 3 hours later solution of MTT was discarded and 100 µl of isopropanol were added in each well in order at 570 nm.



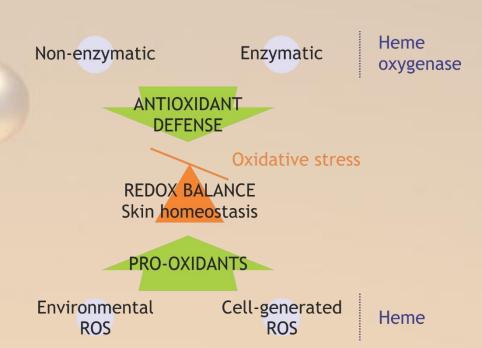


 β carotenoids skin level after oxidative challenge with ozone, in vivo study.

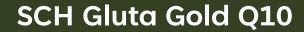
- Skin was exposed to Ozone flow during 15 minutes after applicaction of placebo or SCH Gluta gold Q10 onto face.
- Carotenoids Autofluorescence measured on the cheeks at D0 and D0+15, for hemiface treated with placebo or 0.3% SCH Gluta Gold Q10 cream.



SCH Gluta Gold Q10 compensates redox unbalance in aging skin by releasing glutathione.

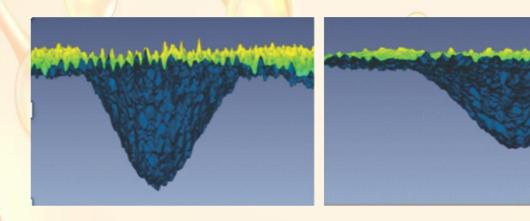


SCH Gluta Gold Q10 (0.3%) PROTECTS AGAINST OXIDATIVE DAMAGE AND KEEPS CAROTENOID SKIN LEVEL





SCH Gluta Gold Q10 effect on skin elasticity in vivo study.



35-60 YEARS OLD
TWICE DAILY
SCH GLUTA GOLD Q10 0.30%
CREAM APPLICATION

IMAGES OF SKIN DEFORMATION USING
DYNASKIN VOLUMEN AND MAXIMUM
DEPTH DEFORMATION MEASURED AFTER
A CALIBRATED AIRFLOW BEAM IN
PLACEBO VS SCH Gluta Gold Q10 GROUPS



SCH effect on skin elasticity; in vivo study.

35-60 YEARS OLD
TWICE DAILY
MITOGOLD 0.30%
CREAM APPLICATION



% Skin deformation after an airflow after 28 days treatment with 0.3% SCH Gluta Gold Q10

DynaSKIN, uses a positive pressure to deform the skin and test its response to mechanical force application.

The instrument releases a force-calibrated jet of air, close to the skin surface, that indents the skin simulating, tactile judgement of firmness. The deformations' 3D geometry and deformation recovery are quantifiable. These parameters correspond to the mechanical properties of the skin described by its stiffness or firmness. The larger the deformation, the less firm the skin.

SPECIFICATIONS

- Apperance: Solution
- INCl.: Water, xanthan gum, Gold, Gluthatione, Coenzyme Q10
- Recommended dose: 0.30%
- Legal status: EU|US|CN|JP|KR|AUS





THANK YOU

Thank you for your interesting and attention! If you need sample and technical data, please contact us without hesitation

