PharmaClinix®
Advanced Cosmeceuticals

Lightenex Gold serum
Clears deep Hyperpigmentation
Pharmaclinix® products are produced after extensive research using a unique combination of ingredients, designed to suit Asian & Arabic skin.
Lightenex® Gold serum is a powerful active balanced preparation of:

- Exfoliates
- Depigmenters
First line of choice with a significant reduction of pigmentation after 3-4 weeks.

Before

After
Lightenex® Gold Serum

Contains Depigmentation and loading vitamins & anti-oxidants for:
  • Pre-Procedures
  • Facial treatments
  e.g. Fraxel rejuvenation or Q-switch in dermal melanosis.
Lightenex® Gold Serum
Actives
DEPIGMENTERS

- Kojic Acid 4%
- Alpha Arbutin 3%
- Beta Arbutin 3%
- Azelaic Acid 9%
- Phytic Acid 5%
- Licorice Extract 5%
- Dioic Acid (Oct-Decenedioic Acid) 4%
- Ascorbic Acid 5%
- Ferulic Acid 0.5% & Vitamin E 2%
Kojic Acid 4% & Glycolic acid 8% Synergy

DOCUMENTED SYNERGY
• 39 patient split face study comparing Kojic Acid 2% & Glycolic Acid 5% with Hydroquinone 2% & GA 5% showed better results with Kojic Acid.

• Double Blind 80 patient Multi-ethnic study comparing Hydroquinone 4% with KA & GA combination showed both to be equally effective over 12 Weeks, with less side effects.

REF-Draelos ZD, Yatskayerm et al. Dermatology Consulting Services, High Point, N Carolina, USA.
Azelaic Acid & Glycolic Acid

Multicentre, randomized, double-masked study comparing
- Hydroquinone 4% with
- Azelaic acid & Glycolic Acid combination gave equal results.

RETINALDEHYDE (RAL) 0.25% & GLYCOLIC ACID 8% (GA) gives more Retinoic acid (RA)

The presence of GA converts RAL to Retinoic acid (RA)

This combination allows:
• delivery of high amounts of RA in the skin while,
• preventing the side-effects
• usually observed with high concentration of topical RA.

Pharmacology of RALGA,a mixture of Retinaldehyde&Glycolic acid.
Tran C Kasraee B et al.
Dept of Dermatology,University Hosp, Geneva, Switzerland.
Azelaic Acid in the presence of Retinoic Acid is even more effective in Reducing hyper-pigmentation.

REF-Cutis.1996 Jan;57 (1 supple) 36-45. Melanin Hyperpigmentation of skin Melasma, topical treatment with Azelaic acid & other therapies. Breathnack AS
AZELAIC ACID 9%

Azelaic acid only works on Hyperactive Melanocytes where DNA synthesis is fast.
- Powerful Inhibitor of enzyme Thioredoxin reductase.
- This enzyme adds electrons to Thioredoxin which can then activate Tyrosinase & also helps make DNA.

AZELAIC ACID 9%

Proven as effective as Hydroquinone in Melasma.
• Azelaic acid has an anti-proliferative & Cytotoxic effect on Melanocytes.
• Gentle exfoliant -removes melanin loaded epidermal cells gently without irritation

Alpha Arbutin 3%

Cultured Human Melanoma cells & three dimensional human skin model treated with Alpha Arbutin showed:
• 60% reduction in Melanin
• Melanin synthesis reduced by 24%
• Cellular tyrosinase activity significantly reduced.

Lightenex® Gold contains both Alpha Arbutin & Beta Arbutins to reversibly & maximally inhibit the enzyme Tyrosinase. Alpha and Beta Arbutin action on Tyrosinases from Mushroom & Mouse Melanoma showed:

- Beta Arbutin inhibited both Tyrosinases (showing non-competitive action).
- Alpha Arbutin only inhibited tyrosinase from mouse melanoma 10 times as strongly as Beta Arbutin showing mixed type inhibition.

Arbutin 6% total

Normal human skin micro flora can hydrolyze arbutin to Hydroquinone which shows more potent radical scavenging activity and Tyrosinase inhibition than Arbutin.

Dioic Acid (Octadecene-dioc Acid) 4%

An open comparative study of NINETY SIX (96 female) Melasma patients in an open, comparative, 12 week study between Dioic Acid 1% & Hydroquinone 2% showed:
- no significant difference between treatments. (same results)
- more pruritus (itching) with hydroquinone

This acid is a Di-carboxylic acid (dioic) like Azelaic but is 18 Carbon atoms long instead of 9 carbons like Azelaic. It is made from Bio-fermentation of Oleic acid using Yeasts.

Dioic Acid
(Octadecene-dioic Acid) 4%

A twenty patient placebo study on patients of Indian and Pakistani origin given 2% Octadecene-dioic acid over 8 weeks showed:
- A significant reduction in melanin
- (p<0.025) measured both by chromameter & mexameter.

Dioic Acid (Octadecene-dioc Acid) 4%

In-Vitro studies using Octadecene-Dioic acid 2% in Melanoma cells showed that it binds to PPAR-gamma receptors on nuclear membrane of melanocytes to:
- Reduce tyrosinase production by 52%
- Reduce melanin synthesis by 46%
- Reduce Tyrosinase mRNA production by 54%

Retinaldehyde 0.25%

Retinaldehyde has been shown to improve depigmentation by one step conversion to Retinoic acid followed by:

- Increasing epidermal cell turnover (Epidermopoiesis).
- Decreases melanosomal transfer of Melanin.
- Stratum corneum changes to affect the permeability barrier to facilitate the penetration of dispigmenting agents in the Epidermis.

Ascorbic Acid 5%

16 patient slit-face randomized study in Melasma patients comparing Ascorbic acid 5% with Hydroquinone 4% showed no statistical Colorometric difference after 16 weeks.

Side effects recorded:
￥ Hydroquinone significantly high side effects (68%)
￥ Ascorbic acid only 6%

Ref: A double blind randomized trial of 5% ascorbic acid vs. 4% hydroquinone in melasma
| International Journal of Dermatology |
Ferulic acid & Vitamin E synergy

An effective whitening agent
- Ferulic acid is a hydroxycinnamic acid that has significant anti-oxidant and anti-melanogenic activity.
- Tocopheryl ferulate is a significant inhibitor of Tyrosinase

LICORICE EXTRACT 5%

LICORICE EXTRACT 5%-
(GLABRIDIN):
• Anti –inflammatory
• Tyrosinase inhibitor.

REF-GLABRIDIN STUDY ON PHARMACLINIX CLINICAL TRIALS.
LICORICE EXTRACT 5% (Glabridin, Glabrin, Isoliquertin)

Glabridin powerfully inhibits both Tyrosinase isoenzymes T1&T3.
  * Prevents Erythema & hyperpigmentation at 0.5% in skin from UV-light.
  * Anti-inflammatory action by inhibiting Superoxide anion production & Cyclo-oxygenase activity.

REF-Pigment Cell Research 1998
Dec;11(6):355-61. The Inhibitory effect of Glabridin from licorice extract on Melanogenesis & Inflammation.
• Inhibition of Licorice extract on Tyrosinase is higher than expected from Glabridin alone.
• Glabrene & Isoliquertin (Chalcone) present in Licorice extract in Licorice extract inhibits Tyrosinase strongly.

A split face controlled study in Egypt on 20 female Melasma patients using Isoliquertin cream over 10 weeks gave a 70% response & only 20% in Placebo patients.

Phytic acid chelates Copper & Iron in skin (makes them unavailable)
- Copper is essential part of the enzyme Tyrosinase which makes Melanin.
- Gentle exfoliant

• Iron catalyses free Radical Formation & subsequent Oxidative damage
• Phytic acid prevents Iron-driven hydroxyl radicle generation & prevents Lipid Peroxidation.
• Depigmenting agent, prevents Calcinosis cutis (calcium leaching) & premature ageing.
• Very well absorbed into skin

A double blind, vehicle controlled trial in 30 healthy subjects with greater than 2 Solar Lentigines were randomly signed to apply Ascorbic Acid 10% + Phytic Acid 2% over 3 months showed statistically significant improvement between study drug & vehicle.

Ref: Journal of Cosmetic Dermatology | volume 10, issue 4, pages 266-272, Dec 2011 | Randomized controlled study to evaluate the depigmenting activity of L-Ascorbic acid plus Phytic Acid | Abdullah Khemis MD et al.
Lightenex® Gold Serum Works

pharmaclinix.com
PharmaClinix®
Advanced Cosmeceuticals

UK's Top Selling – Professional skin care
Scientifically designed for Asian & African skin.

AZELAIC ACID 9%

Pharmacokinetic profiles are published after exhaustive research using a range of high performance liquid chromatography platforms. A-10% is the most effective way to reduce redness.

Fenolic acid & Vitamin E synergy

As an effective anti-aging agent, fenolic acid helps to stimulate collagen production and reduce the appearance of fine lines and wrinkles. It also works in synergy with Vitamin E to provide powerful antioxidant protection.

Lightweight Gold Cream

Contains Phospholipid Technology, which helps to improve skin elasticity and reduce the appearance of fine lines and wrinkles. It also contains antioxidants to help protect the skin from environmental damage.

Arbutin 6% total

Normal human skin contains latent hydroxytyrosol which is released in response to environmental damage and can act as a potent anti-oxidant. Topical application of hydroxytyrosol can improve skin texture and reduce the appearance of fine lines and wrinkles.

Prezi