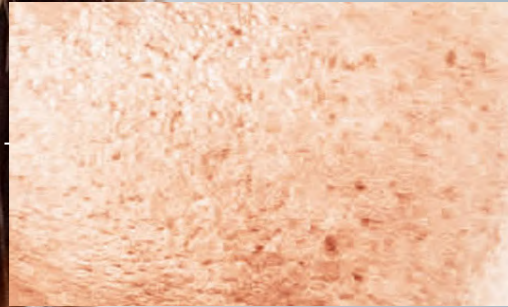


# SkinMTX<sup>®</sup>

Insider Access

February 2024



*Erasing*  
**STUBBORN SPOTS and**  
**DISCOLORATION**  
*from the root source*



SkinMTX  
Insider Access:

# *February 2024* Edition

**Can't seem to get rid of stubborn spots? Chances are, before the existing ones can fade off, new ones start developing. Which is why it may seem like your spots and discolorations never seem to go away!**

Fret not, we've developed the perfect spot-lightening range that fades existing spots, unifies skin tone, and prevents the formation of new spots! Read on for more info!



# Understanding the Causes of Pigmentation

Skin pigmentation is a complex biological process that involves the production and distribution of melanin.

Melanin is also the pigment responsible for the color of our skin, hair, and eyes. The brown coloration results from the pigments eumelanin and pheomelanin, which are produced in special epidermal cells called melanocytes.

The enzyme tyrosinase, usually present in an inactive form, is formed in these melanocytes. UV light triggers the activation of melanogenesis, a complex series of enzymatic chemical reactions.

This leads to the formation of melanin, causing undesirable discolorations on the surface of the skin that typically manifest as age spots, melasma, or freckles.

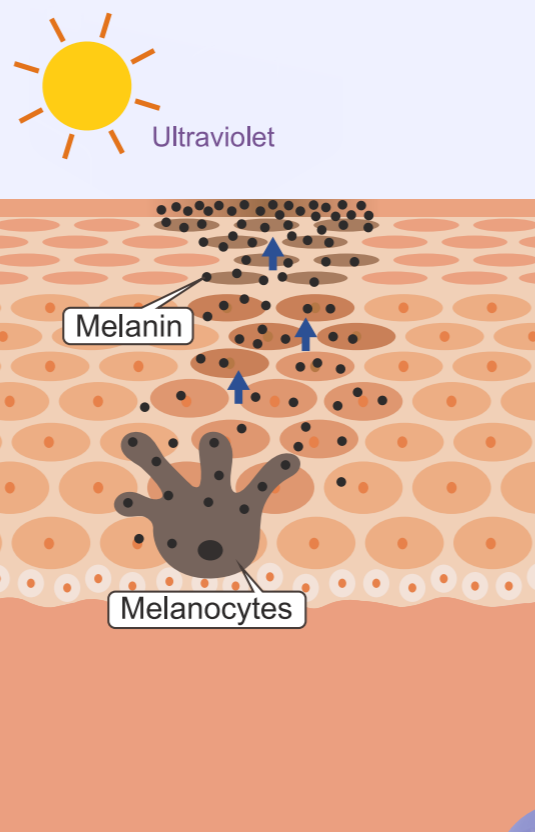


Figure 1. Generation of Melanin



Brown Spots



Melasma



Freckles

Figure 2. Types of Skin Pigmentation

## Remedies:

# Alpha Arbutin vs Hydroquinone vs Others

### Alpha Arbutin vs Hydroquinone

Hydroquinone has long been considered the gold standard for the treatment of hyperpigmentation. However, there has been growing concerns about its side effects. It has been shown to cause chronic adverse effects<sup>1</sup>. These include exogenous ochronosis, cataract, pigmented colloid milia, sclera, and nail pigmentation, loss of elasticity of the skin, impaired wound healing, and exuding an offensive fish odour. Plus, Hydroquinone can also cause DNA damage. These adverse effects limit the usage of hydroquinone.

Alpha-Arbutin, on the other hand, gained attention and recognition for its skin-lightening potential. It is a derivative of hydroquinone that has been **proven to have a superior lightening effect without the toxicity and irritations associated with hydroquinone**<sup>2</sup>

	Hydroquinone	Alpha Arbutin
<b>Structure</b>	<chem>Oc1ccc(O)cc1</chem>	<chem>Oc1ccc(O[C@@H]2O[C@H](CO)[C@@H](O)[C@H]2O)cc1</chem>
<b>Toxicity/Irritation</b>	Dermatitis, post-inflammatory pigmentation, ochronosis and discoloration of the nails <sup>2</sup> .	Cell toxicity of alpha arbutin decreases as a result of glycosylation of hydroquinone <sup>1</sup> .
<b>Source</b>	Produced synthetically	Biosynthetic active ingredient
<b>Photosensitivity</b>	Increases photosensitivity	Photosensitive at >7% concentration <sup>4</sup>
<b>Efficacy</b>	Similar or better in efficacy but <b>Alpha-Arbutin</b> is less cytotoxic compared to Hydroquinone <sup>3</sup>	

Table 1: Hydroquinone vs Alpha Arbutin

### Comparison with other skin lightening active ingredients

To determine the skin-lightening effects of different active ingredients, an in-vivo study was carried out on 80 women. It demonstrated that an emulsion containing 1% Alpha-Arbutin resulted in a faster and more pronounced skin lightening effect after 1 month when compared with other commonly used single components at the same 1% levels.

Figure 3 shows the classification of lightening ingredients according to the magnitude of their specific effect after 1 month (measured by chromametric studies).

Interaction curve for parameter "L": Treated zone vs control, difference M1/M0

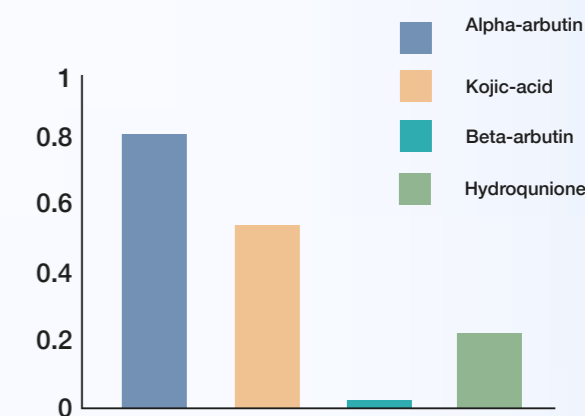


Figure 4. Results of Skin Brightening Study<sup>1</sup>

**RESULTS: Alpha-Arbutin** gives a faster and more pronounced skin brightening effect after 1 month

<sup>1</sup>Sarkar et al, 2013 J. Cutan. Aesthet. Surg.: Cosmeceuticals for Hyperpigmentation: What is Available?  
<sup>2</sup>Couteau et al, 2016 Cosmetics: Overview of Skin Whitening Agents: Drugs and Cosmetic Product





SKINMTX ALPHA RANGE

# Enhancing the benefits of *Alpha Arbutin* with synergistic combinations

If you're looking for brighter, more unified skin tone with reduced spots, look no further! SkinMTX® has achieved amazing proven results by harnessing the brightening properties of Alpha Arbutin, and enhancing it with synergistic combinations of other active ingredients.

**Alpha Arbutin: Mechanism of Action**

Firstly, let's take a look and understand how Alpha Arbutin works. It blocks melanin production in 2 stages - by inhibiting enzymatic oxidation of Tyrosine and Dopa. In addition to higher efficacy, it also boasts a better safety profile compared to hydroquinone, and is more stable when compared to beta-arbutin. These characteristics make it the go-to active for lightening of complexion and minimization of dark spots on the skin.

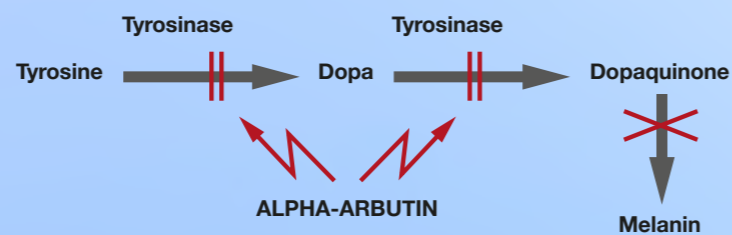
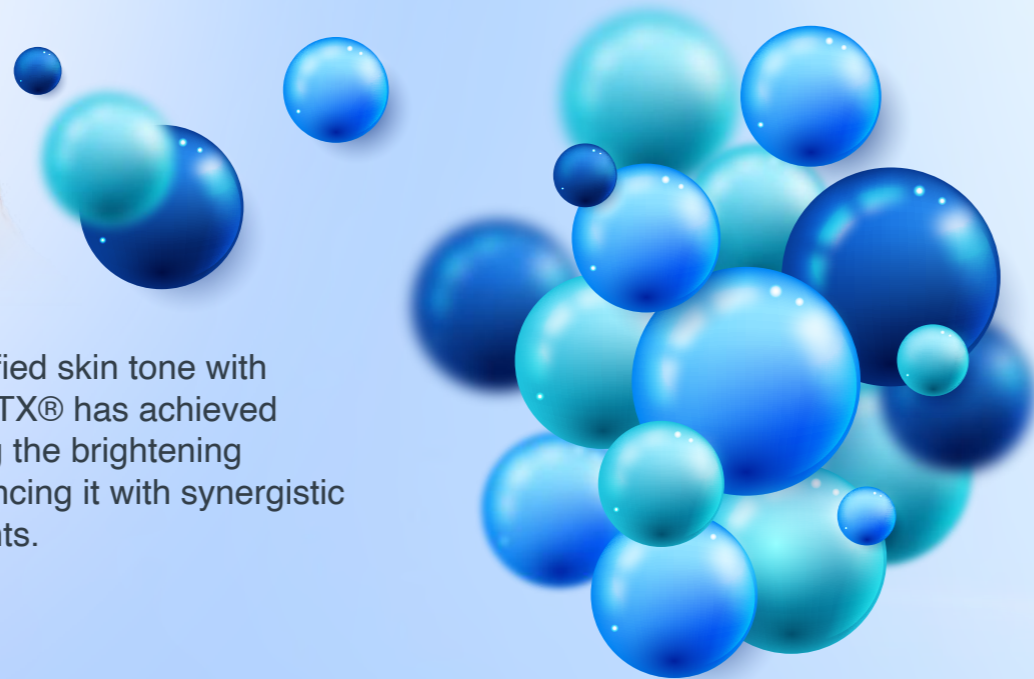


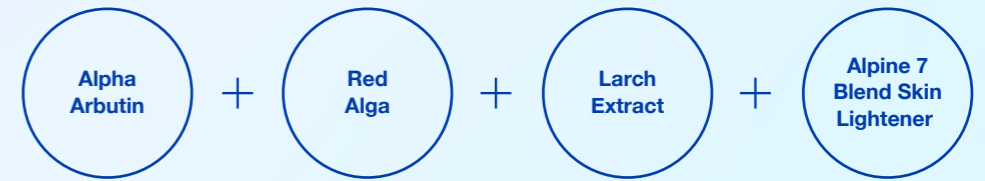
Figure 3. Alpha Arbutin Mechanism of Action

**SkinMTX Alpha Range**

Each product in our Alpha Range is curated to precisely target spots and discoloration. For effective results, we have combined Alpha Arbutin with other efficacious ingredients to provide amazing results.



TREAT



**Alpha Optimal Lightener** ☀️ 🌙

Lightens discolorations and hyperpigmentation to even out skin tone

- **Safely** inhibits melanin synthesis to minimize hyperpigmentation
- **Restores** radiance through increased hydration
- **Evens** out and unifies skin tone
- **Boosts** suppleness and smoothness



MOISTURIZE



**Alpha Illuminator** ☀️ 🌙

Revives Vibrant Luminosity and Boosts Moisture Levels

- **Optimizes** hydration levels and seals in moisture to amplify luminosity
- **Targets** skin discolorations and pigmentation
- **Lightens** and unifies overall complexion
- **Controls** sebaceous levels for lasting shine-control



TARGET



**Alpha Spot Corrector** 🌙

Dissolves Melanin Grains in Dark Spots

- **Resurfaces** excessive keratin build-up
- **Inhibits** melanin production at source and dissolves melanin trapped in between cells
- **Increases** resilience against external aggressors



# SkinMTX<sup>®</sup>

Clinically Researched Formulation

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