

CHOLLEY Phytobiotech Brilliance Serum is a new and exciting skin whitening product for the treatment of age spots and melasma. Its innovative formula takes advantage of 3 special ingredients that work in synergy on 3 different phases of melanin formation and maturation.

1. **Tranexamic Acid** inhibits production of α -MSH that triggers production of melanin.
2. **Azelamide MEA** prevents the tyrosinase process that matures melanin and generates its dark color.
3. **Niaciamide (Vit. B3)** impedes the transfer of melanin to skin cells.

CHOLLEY Phytobiotech Brilliance Serum is designed to be effectively combined with other cosmetics. A few drops of the product can be added to any CHOLLEY cream or lotion to give it skin lightening properties. It can also be used with other CHOLLEY skin whitening products to enhance their power.

Performance characteristics & active ingredients

CHOLLEY Phytobiotech Brilliance Serum performs important dermatological functions as follows:

- **Brightens the skin and diminishes the visibility of melasma and age spots**

TRANEXAMIC ACID, AZELAMIDE MEA,
NIACINAMIDE (Vit. B3), GLYCYRRHIZA GLABRA (Licorice) ROOT EXTRACT

- **Soothing and anti-inflammatory action**

TRANEXAMIC ACID, CUCUMIS SATIVUS (Cucumber) FRUIT EXTRACT,
GLYCYRRHIZA GLABRA (Licorice) ROOT EXTRACT

- **Scar healing and skin smoothing effects**

AZELAMIDE MEA, NIACINAMIDE (Vit. B3), CALCIUM PANTOTHENATE (Vit. B5),
ALLANTOIN, INOSITOL, ZINC SULFATE,

- **Hydrating, skin softening, and strengthening action**

UREA, ALLANTOIN, PYRIDOXINE HCL (Vit. B6),
GLYCINE, ASPARTIC ACID, GLUTAMIC ACID,
GLYCERIN, ETHYLHEXYLGLYCERIN, SORBITOL

Ingredients:

AQUA, PROPYLENE GLYCOL,
TRANEXAMIC ACID, SORBITOL,
GLYCERIN, AZELAMIDE MEA,
RICINOLETH-40, PHENOXYETHANOL,
PHENETHYL ALCOHOL, SCLEROTIUM
GUM, CUCUMIS SATIVUS FRUIT
EXTRACT, GLYCYRRHIZA GLABRA ROOT
EXTRACT, ETHYLHEXYLGLYCERIN,
CALCIUM PANTOTHENATE,
UREA, NIACINAMIDE, GLYCINE,
INOSITOL, ALLANTOIN, ZINC SULFATE,
PARFUM, ASPARTIC ACID, GLUTAMIC
ACID, D-LIMONENE.



CHOLLEY
Phytobiotech Brilliance Serum
Ref. 1021V - 30 ml

Recommended use

CHOLLEY Phytobiotech Brilliance Serum is suitable for anyone who desires a brighter and more uniform skin. Its suitable both for men and women and all age groups. For best results, please special attention to the following points:

1. Before the application of the serum ensure that the skin is perfectly clean.
2. Use the serum after a tonic fluid but always prior to an oil or a cream.
3. In case of age spots or melasma:
 - a. Place a few drops of the serum in the palm of your hand.
 - b. With fingertips and a gentle massage, apply the product on the interested areas.
 - c. Once the serum is completely absorbed, apply your hydrating cream.
 - d. The serum should be applied regularly in the morning and at night.
 - e. During the day, use **CHOLLEY Alpine Solar Defense SPF 50** for UV protection.
4. If your objective is an overall brighter skin, then you can either:
 - a. Apply the serum on entire face
 - b. Mix a few drops of the serum with your daily cream and apply it on the entire face.

CHOLLEY Phytobiotech Brilliance Serum can be effectively used or mixed with all other CHOLLEY Skin Whitening products. We can specially recommend its combined use with:

- **CHOLLEY Phytobiotech Satin ACE Cream** (Vitamin C)
- **CHOLLEY Phytobiotech Satin Balm** (Anti-glycation Sodium PCA)
- **CHOLLEY Phytocell Whitintense Serum** (Alpha Arbutin)
- **CHOLLEY Phyto Emulsion** (Niacinamide)
- **CHOLLEY Phytocell Harmonizer** (Alpha Arbutin)

Recommended age group

It is suitable for all age groups



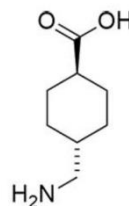
Tranexamic Acid

IMPORTANT TO KNOW

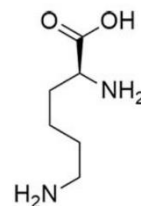
Tranexamic Acid is an interesting ingredient that in recent years has gained popularity in skin whitening treatments. It is a carboxylic acid long used medicine for its antihemorrhagic function. It inhibits fibrinolysis, a process that prevents blood clotting. The chemical structure of *Tranexamic Acid* is similar to the amino acid lysine, which plays an important role in its mechanism of action.

In cosmetics, *Tranexamic Acid* is approved as an astringent and skin conditioner. It is primarily used to improve the appearance of dark spots and reduce hyperpigmentation due to UV exposure. It is considered particularly useful in treatment of melasma, characterized by dark patches that affect sun-exposed areas, primarily the face and neck. While exact causes of melasma are still unknown, it is evident that factors such as UV radiations, genetic predisposition, pregnancy, hormonal changes, use of contraceptives, and sensitizing medications/cosmetics contribute to its development.

The mechanism of action of *Tranexamic Acid* on the skin is still under investigation. A proposed model suggests that:



Tranexamic acid



Lysine

1. UV rays stimulate the keratinocytes to produce plasmin, a hydrolase enzyme produced from its precursor, plasminogen. The antiplasmin activity of *Tranexamic Acid* is believed to be primarily responsible for its skin-lightening effect.
2. Plasmin is responsible for increasing levels of alpha-melanocyte-stimulating hormone that activates melanogenesis.
3. Plasmin is also responsible for increasing prostaglandin E2 and leukotrienes; two molecules that increase melanin synthesis.
4. Finally, plasmin activates fibroblast growth factor, which in turn stimulates melanocyte growth.
5. Additionally, plasmin may be involved in angiogenesis (formation of new blood vessels), a process observed in melasma.

Tranexamic Acid is thought to act upstream, preventing the production of plasmin. Being similar to lysine, it binds to plasminogen in its place to block; thus preventing the formation of plasmin. *Tranexamic Acid* also appears to be able to inhibit tyrosinase, an enzyme involved in the production of melanin, and reduce the activity of mast cells, which are also implicated in the onset of melasma.

Tranexamic Acid has proven as effective in lightening skin blemishes and hyperpigmentation. It is considered a much safer and better tolerated alternative to hydroquinone that works in synergy with other active ingredients such as niacinamide and alpha hydroxy acids.