



# GABA Natural

## Secret to Staying Young

— Rapid and significant anti-wrinkle effects

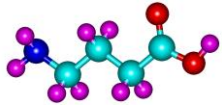
**myskin**recipes  
beauty with smart brain



## Background

### Anti-aging— the eternal theme of skincare products

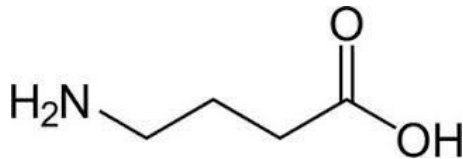
- ◆ *Skin aging is a gradual physiological process, directly affect the outside view and function of the skin.*
- ◆ *Wrinkles are the most obvious symbol of skin aging , and they are referred to as “**the annual rings of life**”.*
- ◆ *Growing global ageing population, rising consumption level, **more and more demands for anti-aging products.***



# Introduction

## Introduction

GABA Natural is aminobutyric acid(GABA), a non-protein amino acid, is widely distributed in plants and animals, and plays an irreplaceable role for the regulation of the organisms' life activities.



Aminobutyric acid

Material	GABA (mg/100g)
Germ	25.40
Mulberry leaf	226
Oolong tea	245.9
Rice bran	10.90
Green tea	1.74-17.4

- ✓ Based on more than 20 years of professional microbial fermentation technology
- ✓ Fermented with the internationally recognized lactobacillus
- ✓ Product purity exceeds 98%

GABA Natural is produced by lactobacillus fermentation and biotransformation , has high purity and high safety.

**GABA is inherent in the human body**, but with the increase of age and mental pressure, the accumulation of GABA diminishes and is more difficult to produce.

With the lack of GABA, there will be a tendency for negative emotions. The most direct impacts of these negative emotions on physical appearance are with the skin that would gray, lose elasticity and produce wrinkles, and so on.

**GABA can quickly penetrate into the skin. It can effectively relax tense muscles, thereby significantly reducing expression lines and crow's feet, to achieve the effects of younger and fresher looking skin.**



GABA →



# Efficacy

## Short-term anti-wrinkle effects

**Instrument:** Human skin fast optical imaging system (PRIMOS, Germany)

**Sample:** The only difference between control and test samples is the formula of test samples contains GABA Natural.

**Subjects:** 30 healthy and eligible volunteers of 25~50 years old

**Methods:** The subjects were randomly divided into two groups. A group used the eye cream containing GABA Natural, the other group used placebo, twice a day.

Evaluate the average depth (Sa) in the same place when time is 0min, 10min, 30min, 2h, 8h.





# PRIMOS photos of short-term anti-wrinkle effects

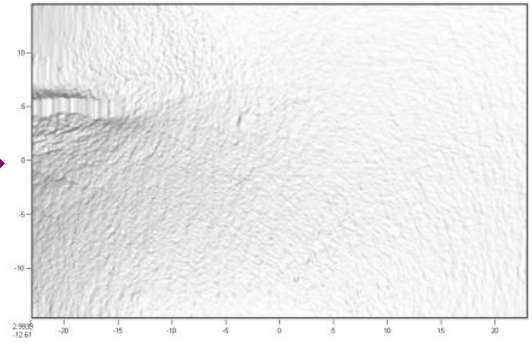
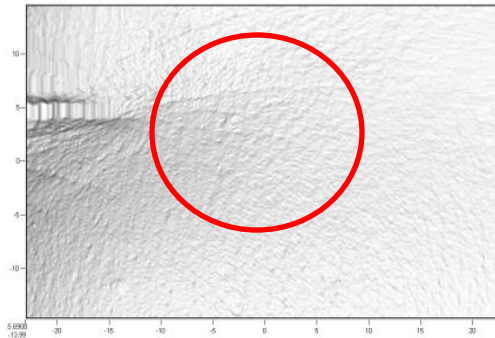
T=0min

T=10min

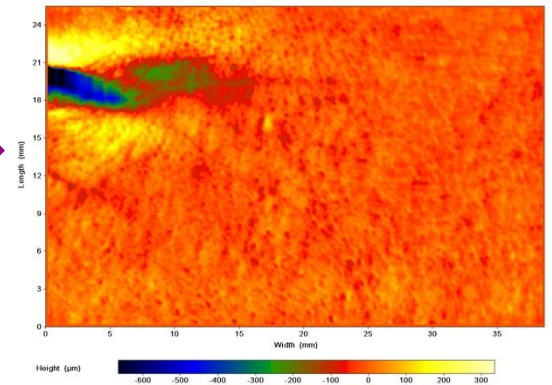
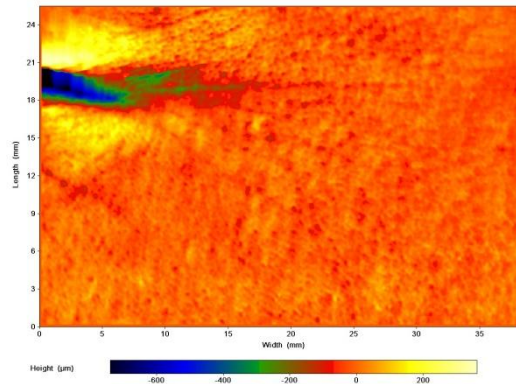
a) True pictures

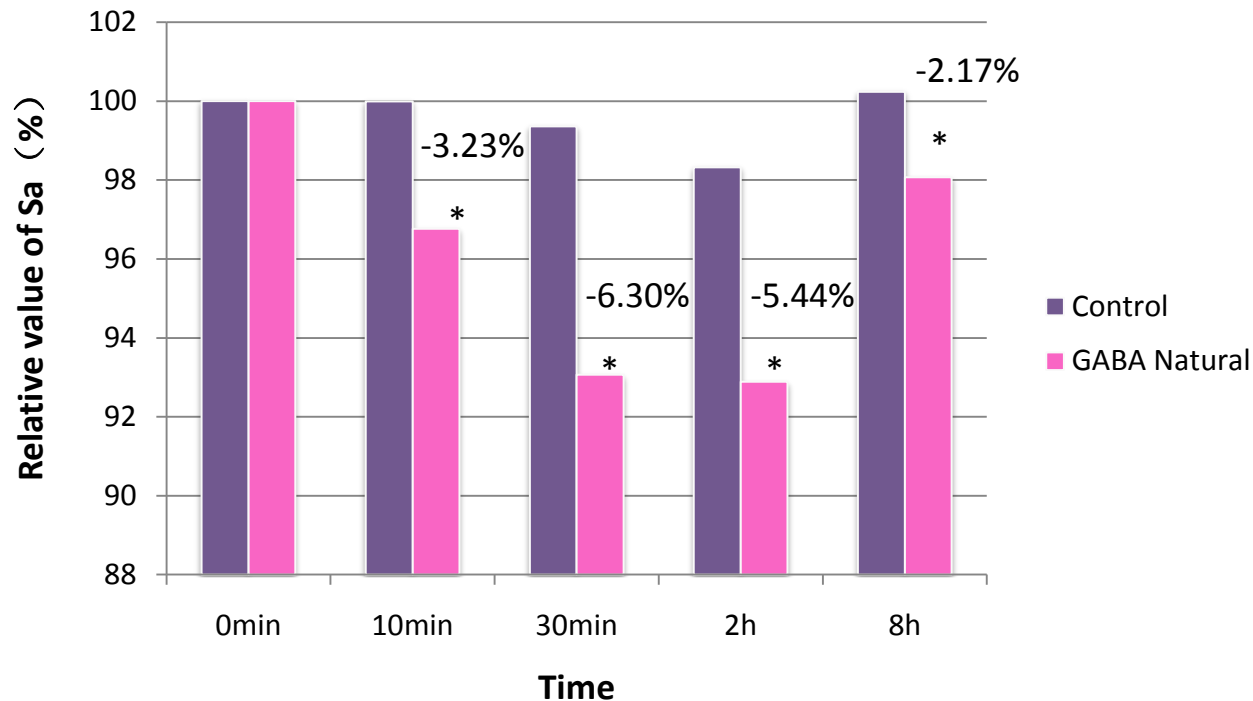


b) Gray scale images



c) 3D pictures





The anti-wrinkle effects were obvious and observed within 30 minutes. Crow's feet and small expression lines on the cheek were significantly reduced. The anti-wrinkle effect sustained for 8 hours, 30 minutes to 2 hours would be the ideal time window. Average depth of wrinkles within 30 minutes can be reduced by 6.30%.





## Long-term anti-wrinkle effects

**Instrument:** Human skin fast optical imaging system (PRIMOS, Germany)

**Sample:** The only difference between control and test samples is the formula of test samples containing GABA Natural.

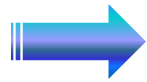
**Subjects:** 30 healthy and eligible volunteers of 25~50 years old

**Methods:** The subjects were randomly divided into two groups. A group used the eye cream containing GABA Natural, the other group used placebo, twice a day. Evaluate the average depth ( $S_a$ ) in the same place when time is 0, 1week, 2weeks, 4weeks.

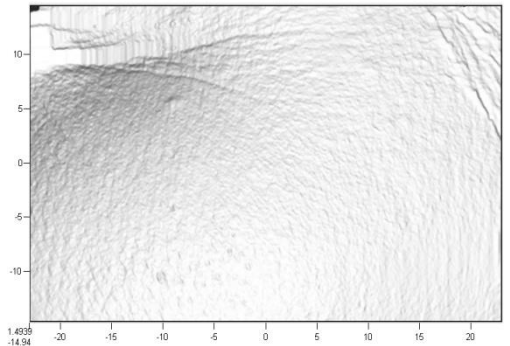
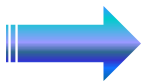
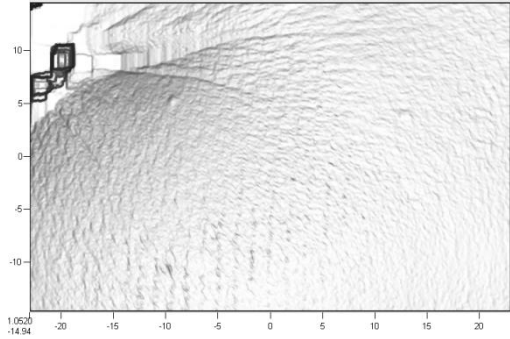


# PRIMOS photos of long-term anti-wrinkle effects

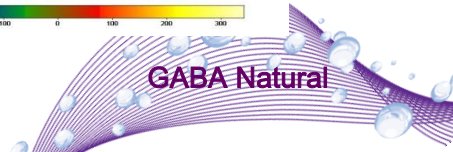
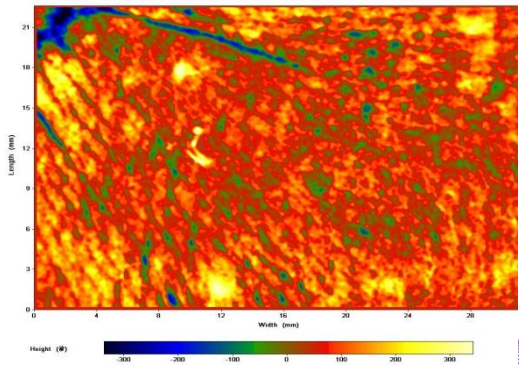
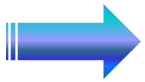
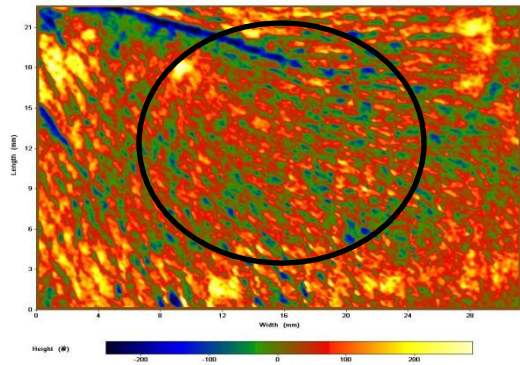
a) True pictures



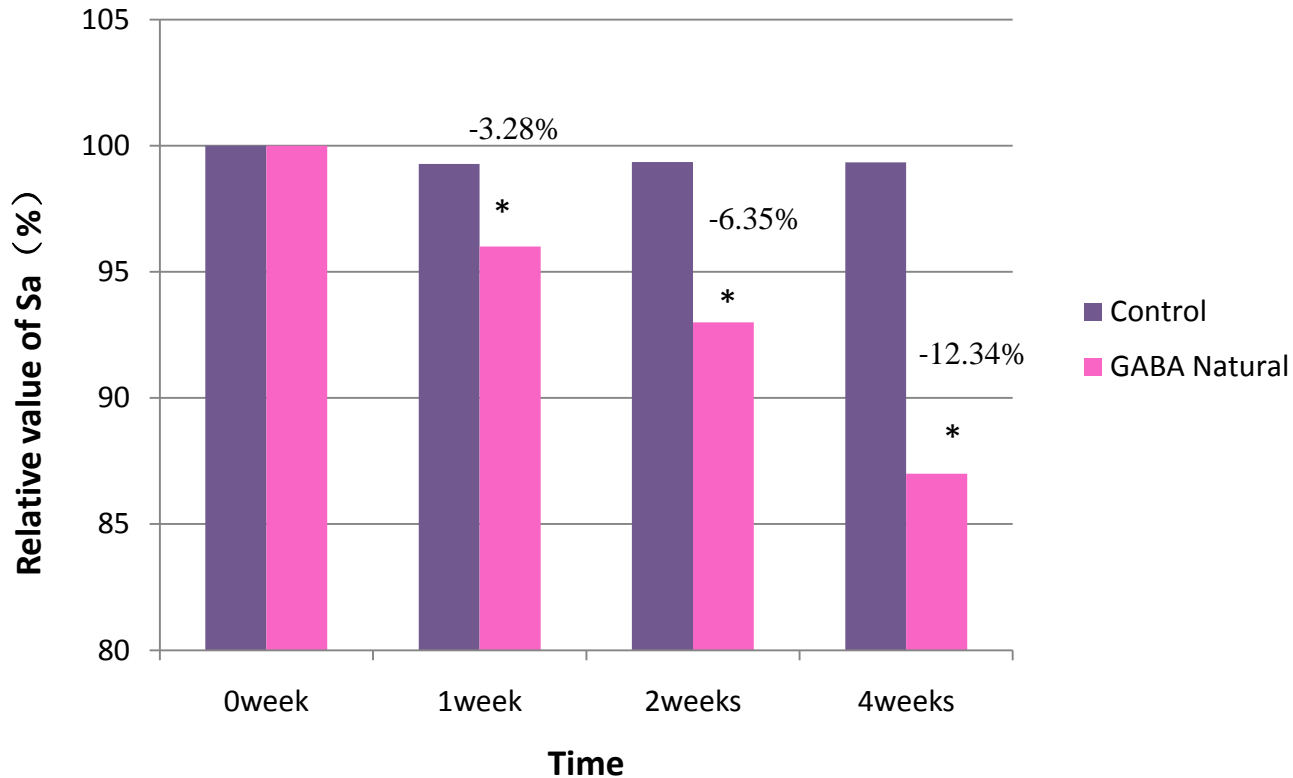
b) Gray scale images



c) 3D pictures



GABA Natural



GABA Natural can effectively reduce the depth of wrinkles, with a significant difference compared to the control group, the average depth of wrinkles can be reduced by 12.34% after 4 weeks.



## Sensory evaluation

**Samples** Eye cream including and excluding GABA Natural

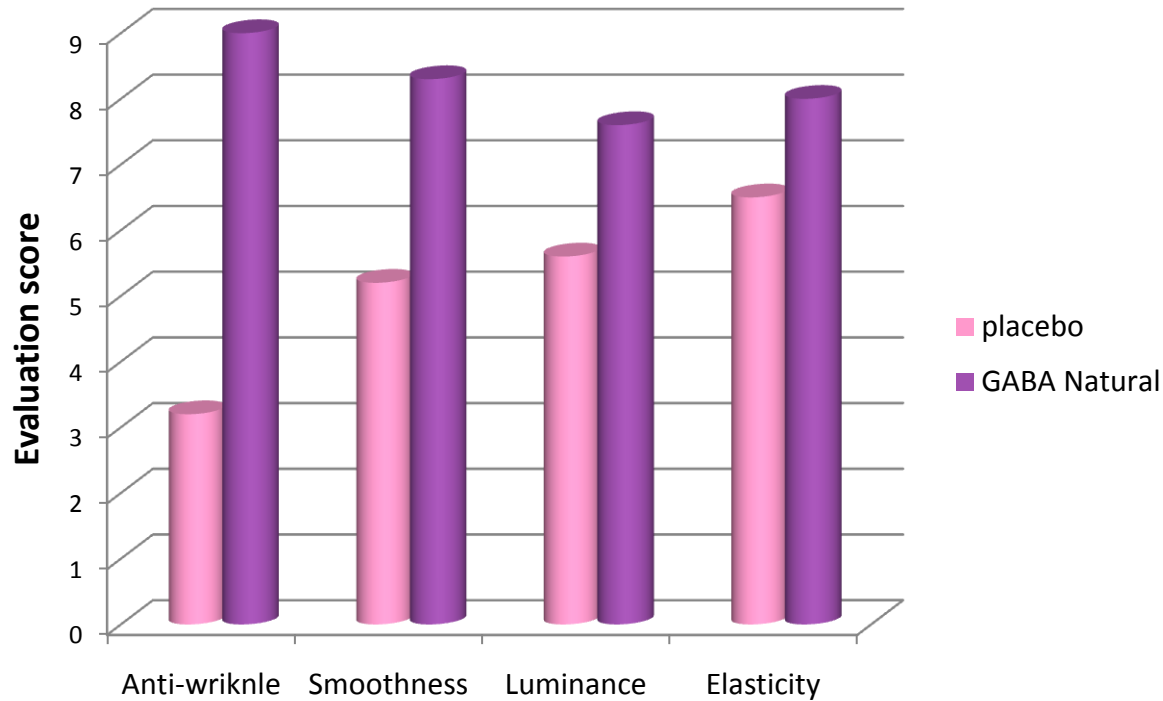
**Evaluation index**

The anti-wrinkle effect, smoothness , whitening effect and skin elasticity were evaluated.

**Test period** 30 days

**Volunteers** 50 healthy volunteers of 25~45 years old





Eye cream containing GABA Natural, has obvious anti-aging effects. When volunteers used the eye cream for 30 days, fine lines disappeared, deep wrinkles lightened, and the skin elasticity increased. The skin became smooth, pigmentation became weak and it also improved skin luminance.



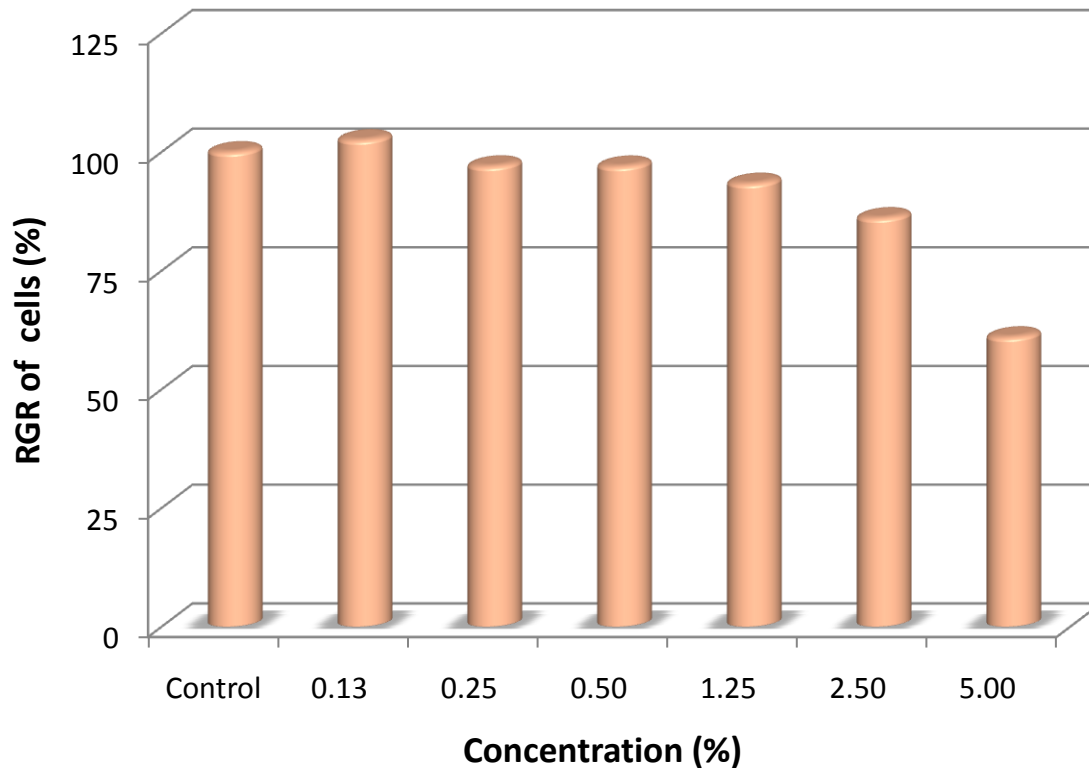
# Safety

## 1 Cell toxicity test

**Test method** GB/T 16886.5-2003 Biological evaluation of medical devices - Part 5: Test for in vitro cytotoxicity (GB/T 16886.5-2003, ISO 10993-5:1999, IDT)  
GB/T 14233.2-2005 Test methods for Infusion, transfusion, injection equipment for medical use - Part 2: Biological test methods.

**Criterion** The cytotoxicity grade was determined according to USP (United States Pharmacopoeia) .From grade 0 to grade 2, the corresponding cytotoxicity was regarded as negligible or acceptable.

Grade	RGR (%)
0	≥100
1	80~99
2	50~79
3	30~49
4	0~29



With the increase of GABA Natural concentration, the cell inhibitory effect increased. When concentration was 2.50%, the cell relative growth rate was 86%. It is safe. when concentration was 5.00%, RGR fell to 60%, still in the range of safety.





## 2 Skin patch test

**Method** The test was carried out according to Hygienic Standard for Cosmetics (2007).

**Subjects** 30 healthy persons as volunteers

**Operation** 0.02g of GABA Natural was applied on the flexible forearm for 24h.



**Results** The cutaneous reactions of 30 volunteers were negative. There is no erythema, infiltration and edema and so on.

GABA Natural is safe for use in cosmetics

# GABA Natural

- **Natural anti-aging ingredient**
- **Rapid and significant anti-wrinkle effects**
- **High safety, high purity**

## Specification of GABA Natural



INCI name	Gamma Amino butyric acid
CAS NO.	56-12-2
Appearance	white or nearly white crystalline or powder
Recommended dosage	0.5-5.0%
Usage	soluble in water, added directly to the aqueous phase
Applications	Suitable for anti-aging products for face and body care
Functions	<ul style="list-style-type: none"><li>•Reduce fine lines and wrinkles</li><li>•Regenerate damaged skin cells</li><li>•Smooth and brighten skin</li></ul>

**Note:** During use, a slight tingling is a normal reaction, which means the product is effective; but if the stimulation continues, please stop using this product.