

## Instant Skin Firming and Anti-Wrinkle Effect of The *Prunus persica* (peach) Gum Extract

**GREAF**

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### Introduction:

Skin aging is a complex biological process, which is produced by two basic processes: internal aging (affected by genetic factors, cell metabolism, hormones and metabolic processes) and due to long-term exposure to light, pollution, ionizing radiation, chemicals and toxins external aging. Research demonstrated that *Prunus persica* (peach) gum extract (PG) has anti-aging and moisturizing efficacy<sup>[1-2]</sup>. The effect of PG on skin firming, elasticity and wrinkle was verified *in vivo*. Results show that PG increases instant and lasting skin firming, skin elasticity and reduces skin wrinkle from 5 min to 8 h.

### Materials & Methods:

#### Firming evaluation on human fingers

1%, 3%, and 5% FLEXANII (sodium polystyrene sulfonate) was firstly recorded to 1, 3, 5 points as a standard on 15 healthy subjects. After that, apply 5% and 10% PG to the other finger in the same way. Waiting for 5-10 mins, gently bend finger to feel the firming effect and score the results.

#### Detecting the skin elasticity on human cheekbone

6 healthy subjects were selected after cleaning the face and waiting for dry in the test environment. Marking the cheekbones on the face with a small label and applied formula contained 10% PG. After 5 mins of absorbing, the skin elasticity R2 was measured by MPA580, lasted to 30 min, 60 min, 4 h, 6 h, and 8 h. ( $R2 = (e(a) - e(a+b)) / e(a) = Ua / Uf$ )

#### Instant wrinkle removal test on human eye corners

The eye corners of 11 subjects were taken a picture with VC98 and VISIA. Applied formulas contained 2%, 5% and 10% PG on each corners. After completely dried for 5 min, took a photo again. And photo were taken as well as 30 min, 60 min, 4 h, 6 h and 8 h later respectively. The pictures were cut to the same position and the same size, then analyzed by its software to calculate the five-segment average R3 and the change rate of skin wrinkle parameter SEw.

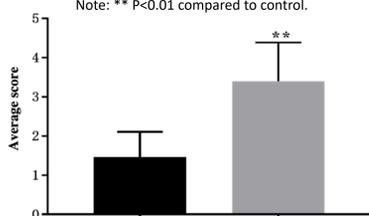
### Results & Discussion:

#### PG improved skin firming

All subjects could feel a significant firmness when treated with 5% and 10% PG. The score reached to 3.4 out of 5.

Samples	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Score
5% PG	2	1	2	1	1	1	1	2	2	1	1	2	3	1	1	1.47
10% PG	3	5	3	2	3	3	2	3	5	4	3	5	3	4	3	3.40

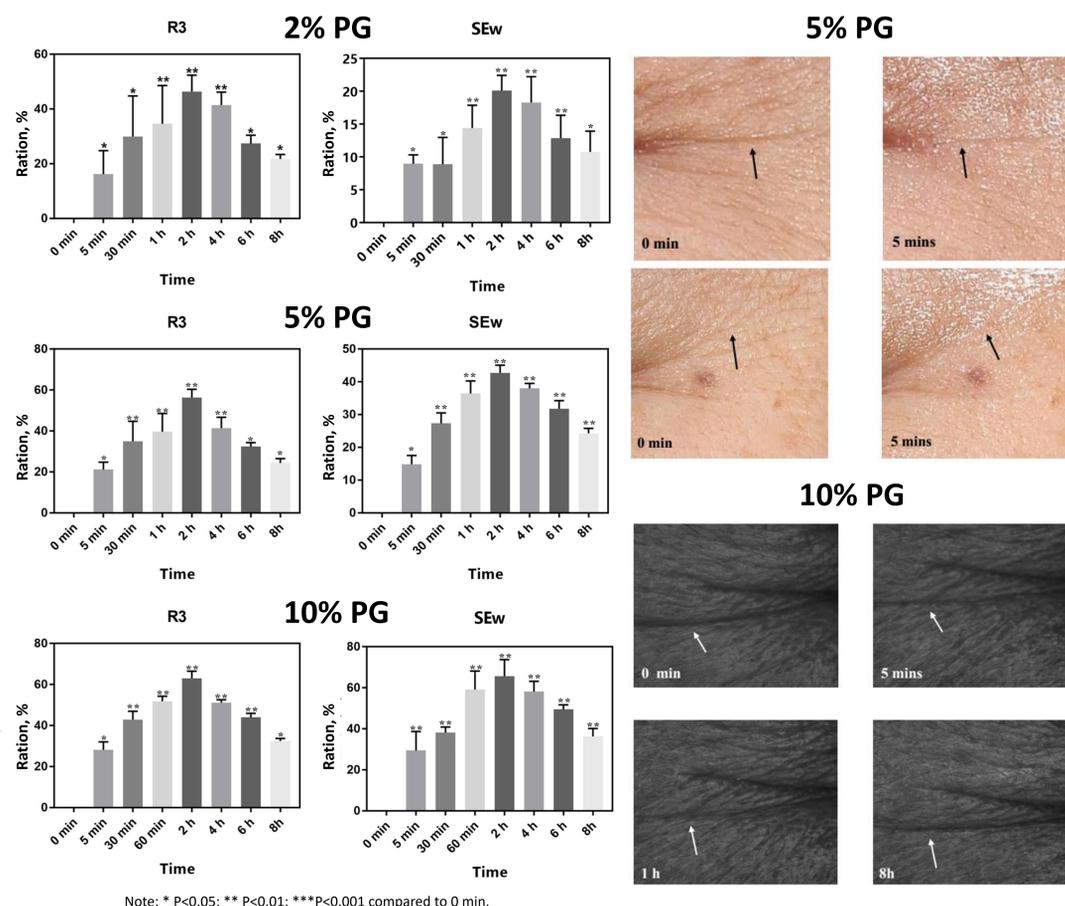
Note: \*\* P<0.01 compared to control.



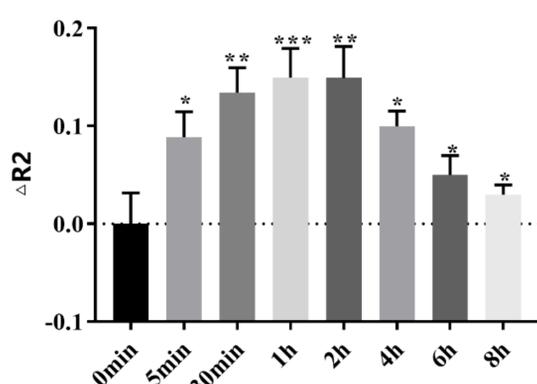
2% Immedeline PG (Only judge whether there is firmness feeling, no comparison)	5% Immedeline PG (Compared to 2%)	10% Immedeline PG (Compared to 5%)
Proportion of those having firmness feeling 100%	Have better firming effect than 2% Immedeline PG 88% (12% think the effect is similar)	Have better firming effect than 5% Immedeline PG 100%

#### PG significantly alleviated skin wrinkle on eye corners

2%, 5% and 10% PG can significantly improve wrinkles, and the higher the concentration, the more obvious the improvement effect.



#### PG improved skin elasticity



Note: \* P<0.05; \*\* P<0.01; \*\*\*P<0.001 compared to 0 min.

The skin elasticity is significantly improved after PG treatment from 5 min to 8 h, reached to 16.9%, 35.9%, 7.5% improvement at 5 min, 2 h and 8 h respectively.

### Conclusions:

- ✓ PG can work quickly and lasts for a long time to 8 h to increase skin firming, skin elasticity and reduce skin wrinkles.
- ✓ It act as a intergradient for anti-aging and skin firming, especially in products that claim immediate and 8 h duration against wrinkles.

### References:

1. Bertin C, et al. A double-blind evaluation of the activity of an anti-cellulite product containing retinol, caffeine, and ruscogenine by a combination of several non-invasive methods. *J Cosmet Sci*, 2001; 52(4):199-210.
2. Gravitz L. *Skin*. Nature, 2018; 563(7732):S83.