

# AA2G™

AA2G is a trademark of Nagase Viita Co., Ltd., registered in Japan, the U.S. and other countries.

Anti-Aging

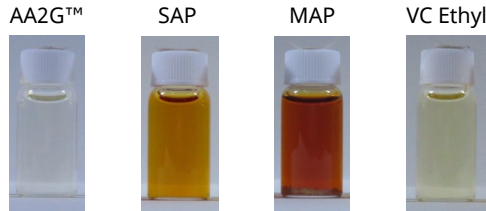
## Stabilized Vitamin C Powered by Enzyme Technology Anti-Aging Effects

### What is AA2G™?

A highly stable Vitamin C derivative produced by combining Vitamin C with Glucose through enzyme technology.

### Stability comparison test with other Vitamin C derivatives

Conditions: 2% solution adjusted to pH 6, stored at 40°C for 6 months



### AA2G™ effects both fine lines and deep wrinkles.

#### Types of wrinkles

##### Fine lines

Major cause: Dryness

#### AA2G™ effect

##### Epidermis

- Increase of skin turnover
- Stimulation of Hyaluronic acid production (Data 1)
- ⇒ **Moisture retention**

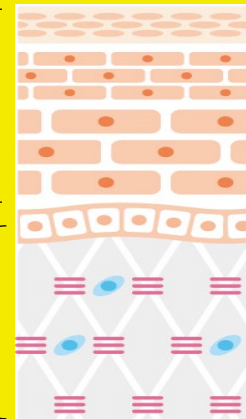
##### Deep wrinkles

Major causes:

- Aging
- UV (photoaging)

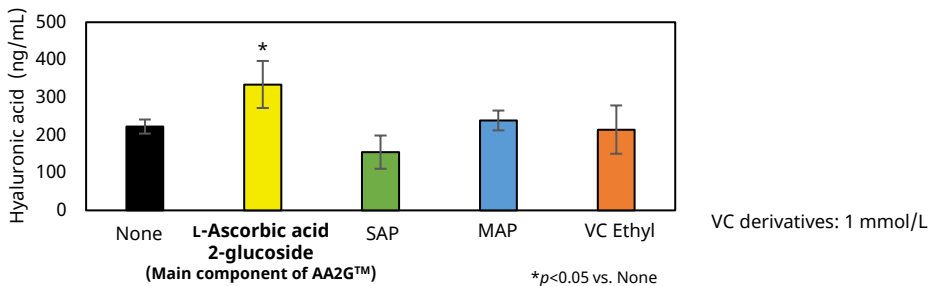
##### Dermis

- Enhancement of collagen production (Data 2)
- Suppression of UVA-induced cellular damage and collagen denaturation



## 1. AA2G™ most effectively stimulated Hyaluronic acid production.

### Comparison with other VC derivatives



#### Method:

1. NHEK were incubated with or without VC derivatives.
2. The amount of cornified envelope were measured from the cell media.

## Information

### INCI NAME

Ascorbyl Glucoside

### SUGGESTED USAGE LEVEL

Skin care	0.5-5.0%
Anti-aging	0.5-5.0%
Brightening	1.0-2.0%

Net. 1kg or 10 kg

### EXPIRATION

18 months (net 10 kg) or 12 months (net 1 kg) from the production date

### COUNTRY OF MANUFACTURE

Japan



### CERTIFICATION



raw material verified by ECOCERT GREENLIFE, conform to the COSMOS Standard

COSMOS APPROVED

NATRUE Certified

IECIC Listed

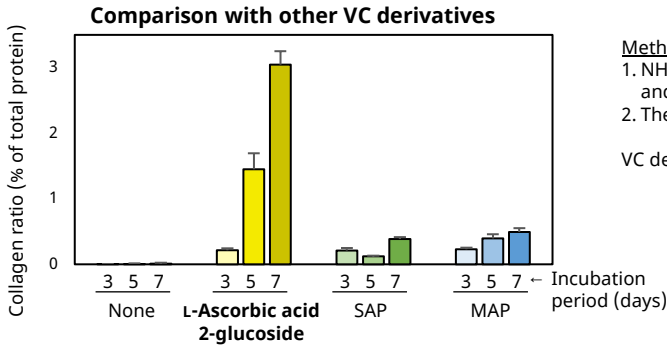


Certified as **Kosher and Halal**

### SUSTAINABILITY

- ✓ **Natural Origin Index = 1.0** (ISO 16128)
- ✓ **Readily Biodegradable** (evaluated by OECD Chemical Substance Test Guideline No. 301F)
- ✓ **Animal Origin Free Material**
- ✓ **Non-GMO**

## 2. AA2G™ most effectively stimulated collagen production.

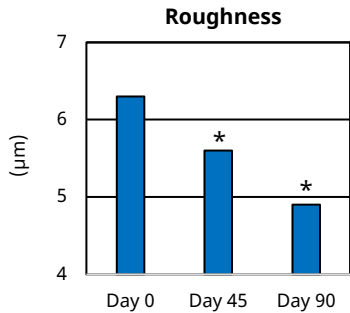
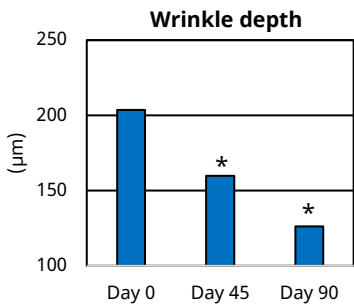


**Method:**

1. NHDF were incubated with or without VC derivatives and collected after 3, 5 and 7 days of incubation.
2. The relative amount of collagen against total proteins was calculated.

VC derivatives: 0.05 mmol/L

## 3. 2% AA2G™ cream reduced wrinkle depth after 1.5 months of use.

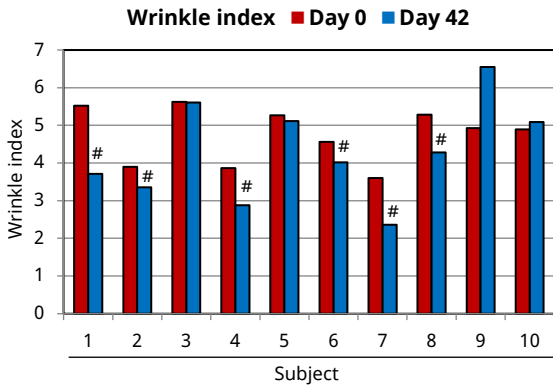


**Method:**

16 females (age: 37-55) applied 2% AA2G™ cream around their eyes twice a day for 90 days.

\* $p < 0.01$  vs. Day 0

## 4. 2% AA2G™ cream reduced wrinkle index after 6 weeks of use.

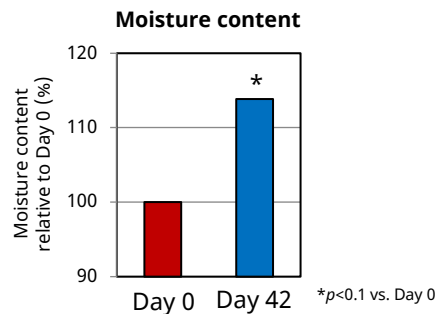
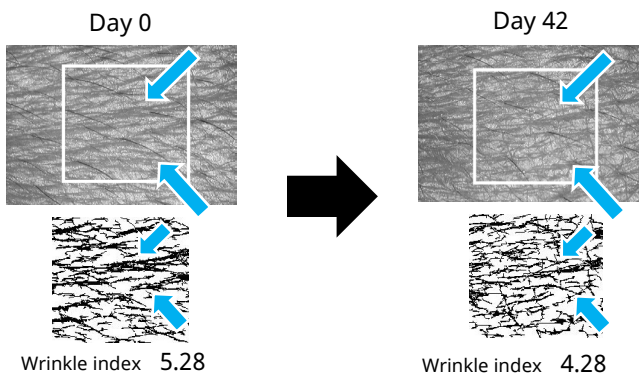


**Method:**

10 females (age: 38-42) applied 2% AA2G™ cream around the eyes twice a day for 42 days.

**Positive effect# of AA2G™ cream was observed in six of ten subjects.**

# Decrease of more than 0.5 was considered as a positive effect.



\* $p < 0.1$  vs. Day 0