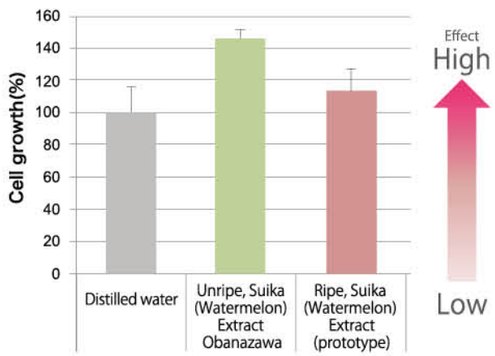
Suika (Watermelon) Extract Obanazawa

Differences between thinned-out unripe watermelon and ripe watermelon

Cell growth

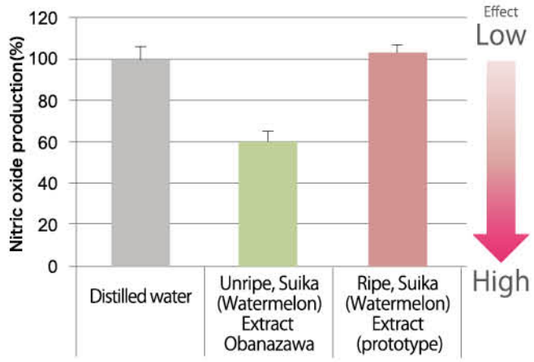
Test method
Each sample was added to normal human cells (fibroblasts). After incubating the cells for 3 days, the number of cells was measured.



Comparison at 0.5% solid content

Anti-inflammatory

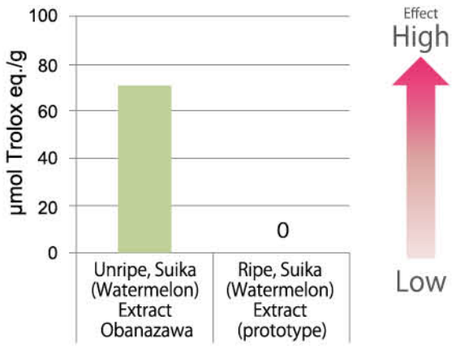
See inside (Anti-inflammatory effect) for the testing method



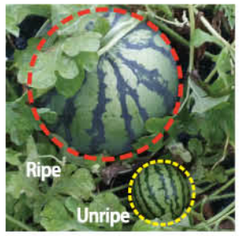
Comparison at 0.5% solid content

Anti-oxidation

Test method
The peroxyl radical (a type of active oxygen) scavenging activity was measured using the TRAP assay.



Suika (Watermelon) Extract Obanazawa is extracted from unripe watermelons that were thinned out. Differences in terms of extract effect were found between ripe and unripe fruits.



Suika (Watermelon) Extract Obanazawa contains amino acids such as citrulline, GABA, and glutamic acid, as well as malic acid and shikimic acid, which provide peeling effects.

Based on in-house data

Safety evaluation	Human repeated insult patch test (HRIPT): Negative

Product No.	Product name	INCI name / 中文名称	Other ingredients	Package
WME-131	Suika (Watermelon) Extract Obanazawa BG	CITRULLUS LANATUS (WATERMELON) FRUIT EXTRACT 西瓜(CITRULLUS LANATUS)果提取物	WATER, AND BUTYLENE GLYCOL	1kg

The country of origin:Japan The place of origin: Yamagata Pref.

KOKEN CO., LTD. 1-4-14 Koraku, Bunkyo-ku, Tokyo 112-0004, Japan E-mail: customer@kokenmpc.co.jp TEL: 81-3-3816-3562 FAX: 81-3-3816-3582 www.kokenmpc.co.jp

KOKEN

Raw material exclusively for cosmetic manufacturing

Botanical Cosmetic Raw Material

Suika(Watermelon) Extract Obanazawa

CITRULLUS LANATUS (WATERMELON) FRUIT EXTRACT

What is Obanazawa?

- Obanazawa is a city located in northeast part of Yamagata Prefecture.
- The climate of the basin, which is characterized by a large temperature difference between night and day, is ideal for cultivation of watermelons, making Obanazawa City the biggest watermelon producer in Japan during the summer.
(Based on data from the website of Obanazawa City, Yamagata Prefecture, as of April 2019)

Applications: Lotions, essences, creams, etc.

Features

Natural ingredients
- Extracted from watermelon grown in Japan (Yamagata Prefecture)
- Suitable for natural cosmetic products

Environmentally conscious
- We use unripe watermelons that were thinned out during crop cultivation
- An ecological product making use of watermelons that would otherwise be discarded

Promoting cell growth
- Promotes growth of normal human cells, thus promoting health skin cell turnover

Anti-aging effects (anti-glycation and anti-oxidation effects)
- Suppressing formation of advanced glycation end products (AGEs), which may cause dull, lusterless skin, exerting anti-glycation properties
- Anti-oxidation effects

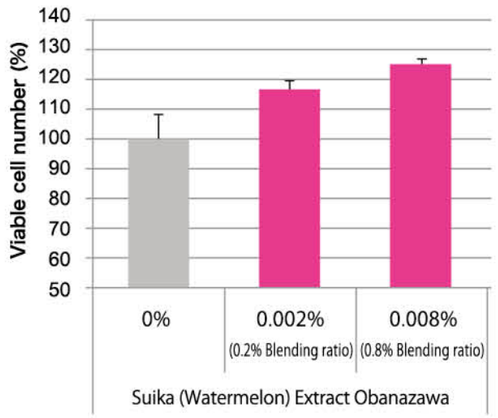
Skin improvement effects
- Is likely to improve skin smoothness
- Increases natural moisturizing factors (NMFs) that moisturize the skin
- Reduces redness of the skin by suppressing inflammatory effects

Suika (Watermelon) Extract Obanazawa

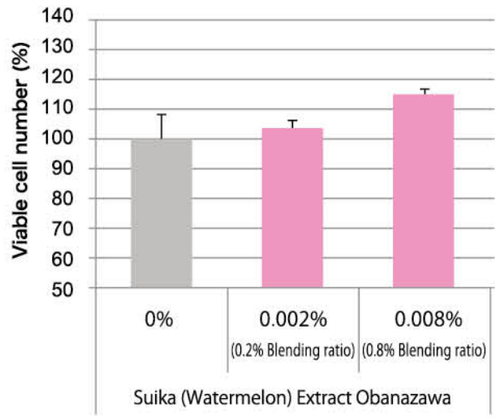
Promoting cell growth

Test method
Each sample was added to normal human cells (epidermal keratinocytes, and skin fibroblasts). After incubating the cells for 4 days, the number of cells was measured.

Epidermal keratinocytes



Skin fibroblasts



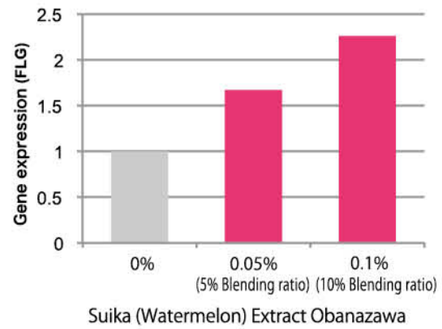
The cell growth effect was achieved by adding Suika (Watermelon) Extract Obanazawa. Suika (Watermelon) Extract Obanazawa is expected to prove effective in promoting skin cell turnover.

Based on in-house data

Skin improvement effects

Test method
Suika (Watermelon) Extract Obanazawa was added to human fibroblasts, and the cells were incubated. The gene expression was analyzed by DNA microarrays.

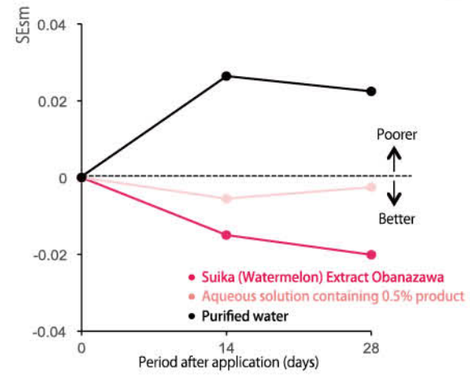
Effects related to natural moisturizing factors (NMFs)



Skin-moisturizing, NMF-related gene expression increased by adding Suika (Watermelon) Extract Obanazawa.

Test method
The sample was applied onto the inner side of the forearm once daily, and the skin condition was observed with Visioscan VC98. The skin condition was quantified using dedicated analysis software.

Smoothness of the skin



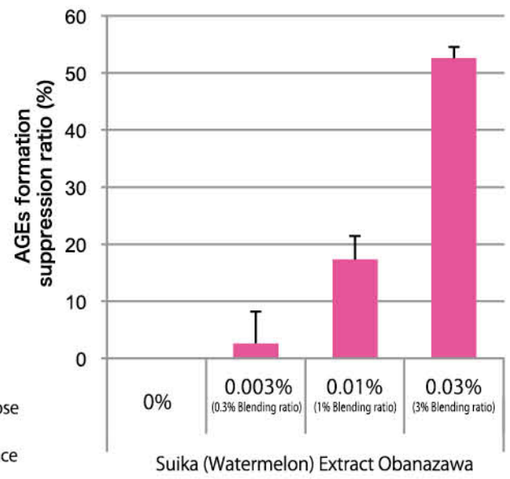
Suika (Watermelon) Extract Obanazawa was found to be effective in improving skin smoothness.

Based on in-house data

Anti-glycation effect

Glycation
A chemical reaction (Maillard reaction) of amino acids or proteins with sugars to form brownish, advanced glycation end products (AGEs).

Effects on skin tissues
- Decreases skin elasticity
- Causes skin drabness
- Decreases skin radiance



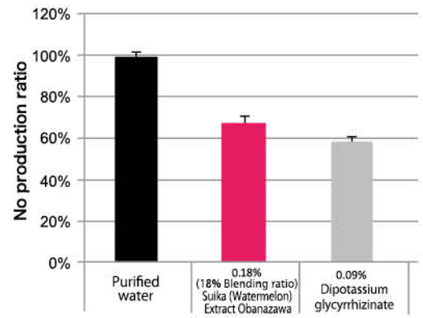
Test method
Suika (Watermelon) Extract Obanazawa or aminoguanidine hydrochloride solution was added to a solution of dissolved glucose and bovine serum albumin and heated at 60℃ for 48 hours. After heat- solution was diluted 10-fold with water and the fluores- cence intensity (Ex, 370nm; Em, 440nm) was measured.

Suika(Watermelon)Extract Obanazawa showed concentration-dependent anti-glycation effect.

Based on in-house data

Anti-inflammatory effect

Test method
Immune cells (RAW264.7 cells, macrophage-derived) were stimulated with lipopolysaccharide to induce an immune response (nitric oxide production).
Samples diluted to different concentrations were added to the immune cells. After incubating overnight, nitric oxide production was measured.

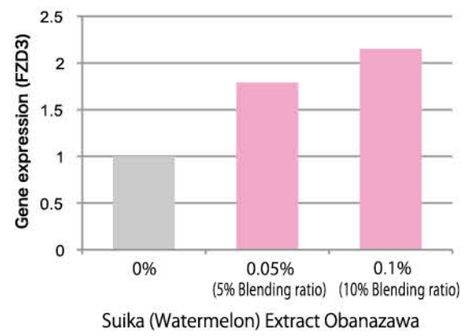


Suika (Watermelon) Extract Obanazawa showed NO production inhibition and was found to have an anti-inflammatory effect.

Based on in-house data

Effects related to hair

Test method
Suika (Watermelon) Extract Obanazawa was added to fibroblasts, and the cells were incubated. The gene expression was analyzed by DNA microarrays.



Hair follicle-related gene expression increased as a result of adding Suika (Watermelon) Extract Obanazawa.

Based on in-house data