

ANTI-AGING

ANTI-POLLUTION

ANTI-GLYCATION

Anti-aging against stress, erratic life style and pollution

# BIO-FRGE<sup>+</sup>

INCI NAME : WATER / GLYCERIN / LACTOBACILLUS / GINSENG ROOT FERMENT FILTRATE / CAPRYLYL GLYCOL / 1,2-HEXANDIOL

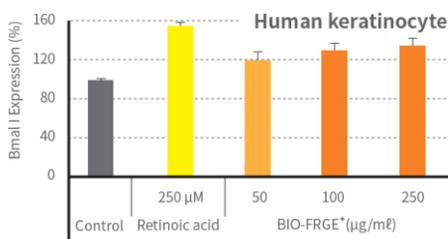


## GENERAL DESCRIPTION FOR RAW MATERIAL

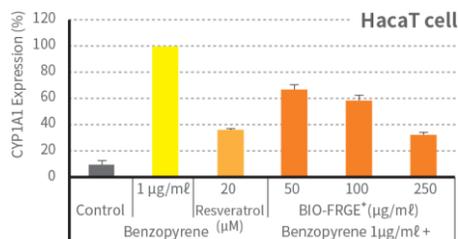
Korean Red Ginseng is steamed and dried with the skin unpeeled from the strictly selected fresh ginseng, *Panax ginseng* C.A. Meyer. It is in light yellowish brown or light reddish brown color. It may be preserved for a long time of 10 years or more. Korean ginseng is well known for its rich saponin content called Ginsenoside that activates the functions of human body's components as well as strengthens immunity. The Korean red ginseng root contains the most saponin among worldwide ginseng and the composition is so exquisite as to display high efficacy and properties. FRGE+ is a Fermented Korean Red Ginseng Extract produced by Bioland's high fermentation technology to increase absorption, reduce bitter taste, and also increase anti-aging property of red ginseng. BIO-FRGE+ is a cosmetic ingredient applied new technology into cosmetic science.

## EFFICACY

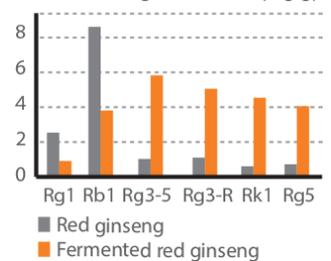
### CYP1A1 mRNA Expression



### Bmal 1 mRNA Expression



the conc. of ginsenosides(mg/g)



## SPECIFICATION

Appearance	Dark brown liquid
Odor	Typical
pH (Neat)	3.0 ~ 6.0
Ginsenoside Rg3 (S,R)	Min. 0.015%
Total Plate count	Less than 1x10 <sup>2</sup> cfu/mL
Yeast & molds	Less than 1x10 cfu/mL

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## TECHNICAL INFORMATION

### Processing & Dosage

The recommended dosage of BIO-FRGE<sup>+</sup> is 0.1-5%. BIO-FRGE<sup>+</sup> is a water soluble active ingredient. In order not to disturb the structure and conformation of the actives, it is recommended to incorporate it into formula at the last phase of the formulation at about 40°C.

### Storage & Shelf life

BIO-FRGE<sup>+</sup> should be stored at room temperature in a tightly closed and lightproof packing. If stored in these conditions the shelf life is at least 24 months. Once the original packing is open, it is highly recommended to use at once.

### Safety information

Panax ginseng, the raw material for red ginseng, has been widely used as traditional herbal medicine in Korea. Furthermore, red ginseng extract is the most common health functional food in Korea. Over 35 countries are eating ginseng products as a health supplement and about a half of supply is coming from Korea. Based on its usage as medical and food supplement, BIO-FRGE<sup>+</sup> is believed as safe material for cosmetics.

## PRODUCT INFORMATION

TRADE NAME	BIO-FRGE <sup>+</sup>	INCI Key Index
INCI NAME	COMPOSITION (INCI Key Index)	A : Greater than 50%
WATER	A	B : Greater than 25% but less than or equal to 50%
GLYCERIN	C	C : Greater than 10% but less than or equal to 25%
LACTOBACILLUS /GINSENG ROOT FERMENT FILTRATE	E	D : Greater than 5% but less than or equal to 10%
CAPRYLYL GLYCOL / 1,2-HEXANDIOL	F	E : Greater than 1% but less than or equal to 5%
STANDARD PACKAGE	20KG	F : Greater than 0.1% but less than or equal to 1%
		G : Less than or equal to 0.1%

