

New Functional Plant Extract for Skin Moisturizer

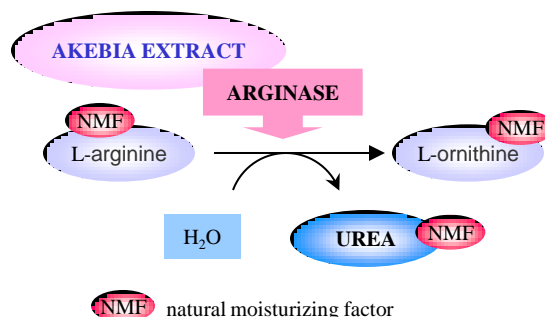
- **AKEBIA EXTRACT BG** is a mixture of 1,3-Butylene glycol and **Mokutsu Extract** obtained by extracting with water from the stem of *Akebia quinata* Decaisne or *Akebia trifoliata* Koidzumi (Lardizabalaceae). The stem of *Akebia* is known as herbal medicine 'Mokutsu' in Japan. **Mokutsu** is prescribed for anti-inflammatory, painkilling and diuresis, and applied for a articular rheumatism, neuralgia and menstrual irregularity.



1 Characteristic

- **New Concept (Our original ingredient)**
AKEBIA EXTRACT BG enhances the activity of arginase, and increase the production of natural moisturizing factor "UREA" by keratinocyte. It has the potential to hydrate the skin from both the outside and the inside.
- **Contain Some Useful Components**
Saponin (hederagenine) and tannin, Sterols (Stigmasterol, β -sitosterol etc.) Potassium salts
- **Thoroughly Reviewing Data Obtained from Safety Tests**
Human Patch Test, Ocular irritation, Cutaneous irritation, Sensitization, Phototoxicity, Photosensitization, Acute oral toxicity, and Mutagenicity.

★ Bio-Synthesis of Urea by Arginase in Epidermis.



2 Composition / Specification

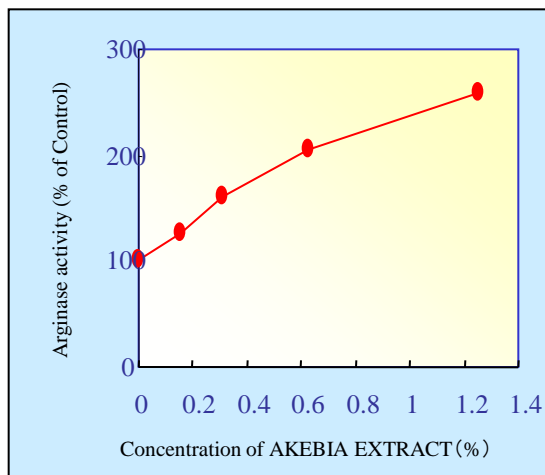
- **AKEBIA EXTRACT BG** consists of **Mokutsu Extract** and **Butylene glycol** in the ratio of 70/30 (w/w).

Components	INCI Names	Wt %
Mokutsu Extract	AKEBIA TRIFOLIATA STEM EXTRACT	0.9
	WATER	69.1
1,3-Butylene glycol	BUTYLENE GLYCOL	30.0

Items		Specifications
Appearance		Brown liquid
Odor		Characteristic odor
Test of identification	Saponin	Pass
	Tannin	Pass
Test of purity	Heavy metals	≤ 20 ppm
	Arsenic	≤ 2 ppm
Specific Gravity (20°C)		0.96 ~ 1.06
Nonvolatile Residue (w/v%)		0.5 ~ 1.3

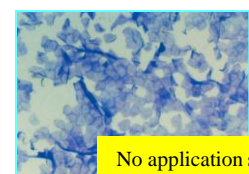
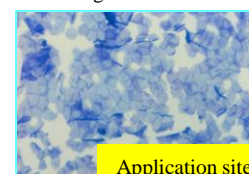
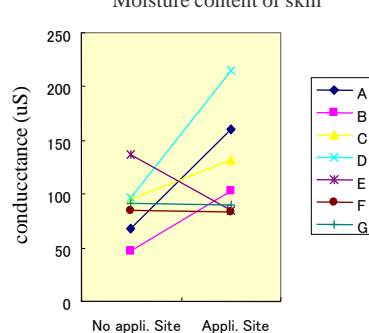
3 Functionality

1) The Activity of Arginase in the Cultured Keratinocytes



2) Daily repeated applications of cream including AKEBIA EXTRACT BG for 2 weeks.

The expansion image on surface of the skin



1% AKEBIA EXTRACT cream was applied to human forearm skin twice A day for 2 weeks. The moisture content of the skin was measured by SKICON-200.