BAKUMONDOU EXTRACT BG™

NOF CORPORATION
Oleo & Speciality Chemicals Div.

New Functional Plant Extract for Skin Moisturizer

- **BAKUMONDOU (herbal medicine name) is a root of Ophiopogon japonicus (Ker-Gawler). Plants with long underground stolons, roots tuberous; leaves many, rather rigid, to 15 inches long, about 1/8 inch wide, dark green, commonly curved; flowers light lilac to white, in a short, few-flowered raceme; fruit blue, size of a pea. An excellent sod-forming plant.**
- **BAKUMONDOU EXTRACT is obtained by extracting with 30% 1,3-Butylene glycol from Ophiopogon japonicus (Ker-Gawler) or congener plants.**

1 Characteristic

- **New Concept (Our original ingredient)**
  BAKUMONDOU EXTRACT BG enhances the activity of arginase, and increases 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**
  BAKUMONDOU contains steroid saponin (ophiopogonin), homo-isoflavonoid (ophiopogonone), saccharide (sucrose, glucose, fructose), polysaccharide.
- **Beneficial Effects of BAKUMONDOU (as a Chinese medicine)**
  Anti-inflammatory, antiallergic, antihypertension, antitumor, antitussive

Chinese medicine : BAKUMONDOU:

2 Composition / Specification

Composition

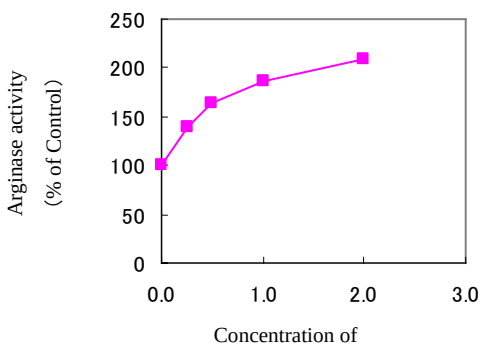
INCI Names	CAS No.	Content
OPHIOPOGON JAPONICUS ROOT EXTRACT	952500-62-8	1.4%
BUTYLENE GLYCOL	107-88-0	29.6%
WATER	7732-18-5	69.0%

Specification

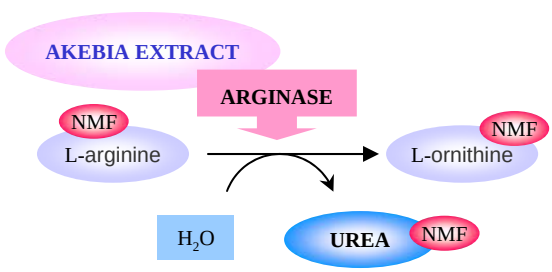
Items	Specifications
Description	Light yellow to yellow liquid , Faint characteristic odor
Identification (Saccharide)	A red to deep red color develops
pH	4.5 – 6.5
Purity (1) Heavy metals	Max. 20 ppm
Purity (2)Arsenic	Max. 2 ppm
Residue on evaporation	0.8 – 2.0 w/v%)

3 Functionality

The Activity of Arginase in the Cultured Keratinocytes



★ **Bio-Synthesis of Urea by Arginase in Epidermis.**



NMF natural moisturizing factor

Cultured human keratinocytes are cultured with **BAKUMONDOU EXTRACT BG** for 2 days.
Arginase activity was determined by measureing inreased quality of converted Urea from Arginine in the enzymatic action.

Head Office Yebisu Garden Place Tower, 20-3 Ebisu 4-chome, Shibuya-ku, Tokyo 150-6019
TEL.03-5424-6690 FAX.03-5424-6810 http://www.nof.co.jp/

Feb. 20 2009