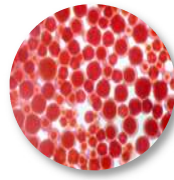


Oryza



Ver.10

Food Ingredients

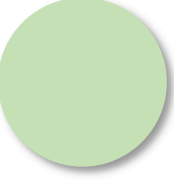
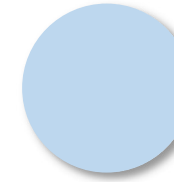
食品原料製品一覧

Products Profile

オリーザ油化株式会社




Oryza Oil & Fat Chemical Co., Ltd.



Ver.10 of Revised Content





■New Products

- STRAWBERRY GUAVA EXTRACT (FemBerry™)  P.54

■Halal Certificate (New addition)

- CITRUS UNSHIU EXTRACT – P
- CITRUS UNSHIU EXTRACT – PC
- CITRUS UNSHIU EXTRACT – LC
- COPRINO™ EXTRACT – P0.5
- COPRINO™ EXTRACT – PC0.5
- SAKURA EXTRACT – LC
- SAKURA SYRUP
- Safleep® – P
- FemBerry™ (STRAWBERRY GUAVA EXTRACT) – P
- ResoVine™ (VINE TEA EXTRACT) – LC
- LycoLift™ (TOMATO SEED EXTRACT) – LC
- PASSIONFLOWER EXTRACT – P
- PASSIONFLOWER EXTRACT – PC
- PASSIONFLOWER EXTRACT – WSP
- PASSIONFLOWER EXTRACT – WSPC

■New Trademark (Including pending applications) :

- SICHUAN PEPPER OIL (SalivaMoist™) 
- VINE TEA EXTRACT (ResoVine™) 
- TOMATO SEED EXTRACT (LycoLift™) 
- MOUNTAIN CAVIAR EXTRACT (VegCaviar™) 

■ New additional items :

- None

■ Stopped sales products :

- None

Table of Contents

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| <u>List of Products' Benefits</u> | P6 |
| <u>Products Profile (alphabetical order)</u> | P16 |
| <i>Appedex 1. List of Recommended Dosage</i> | <i>P62</i> |
| <i>Appedex 2. List of Specification</i> | <i>P66</i> |
| <u>Products of Which Application for Foods with Function Claims have been "Accepted"</u> | P72 |
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How to Use This Catalog

Food with function

“Accepted” is indicated for ingredients of which an application has been accepted. “Submitted” is indicated for ingredients undergoing the process of application. For ingredients with “Accepted” indicated, details such as their health claims and involved components are described on pages 44 and 45.

Recommended

Recommended intake is described assuming that products whose name include -P (powder) is ingested. Ingestion dose may differ depending on the grade of products. For details, please contact sales personnel.

KIKU FLOWER EXTRACT

(Released in May 2014)

Application for food with function claims accepted in Japan

Recommended dosage

100 mg/day (P)

● Japanese patent No. 6452014 (Fibronectin expression promoting material)



-P (powder)

-WSP (water-soluble powder)

- **Anti-gout**
(Double-blind comparative study between parallel groups)
It has been confirmed to possess uric acid lowering activity.
- **Inhibits enzyme which synthesizes uric acid (xanthine oxidase) (in vitro)**
- **Improves symptoms of gout (in vivo)**
- **Suppresses uric acid production (in vitro)**
- **Improves quality of sleep (in vivo)**
- **Anti-wrinkle and skin beautifying effect (in vivo)**

[Origin of raw material]

Flower buds or flowers of chrysanthemum

[Standard component]

Luteolin

[Safety test]

(Chrysanthemum flower extract)

- Single-dose test
LD50: 2,000 mg/kg or more
- Repeated dose (28 days) test
- Ames test
- Five times (500 mg) dose intake test on human

Packing type

The basic packing is described below. If any irregular packing is used, it is described in this area.

- Powder: 1 kg, 5 kg
- Liquid and oil: 16 kg

Halal authorized ingredient

This mark is the Halal certification mark. This certification mark is added to information on Halal authorized ingredients.

Product grade

Basically, -P (powder) and -WSP (water-soluble powder) are available. When only the -P (powder) grade is available, -P (powder) is highly water-soluble.

Description of functionality

Concerning human clinical trials, Oryza's original data is shown in red and data quoted from a published report is shown in blue.

PRODUCTS from RICE (*Oryza sativa*)

| Appeal point Product name | | Life style-related diseases | | | | | Allergies・Inflammation | | | Beauty | | |
|---------------------------------------|-------|-----------------------------|---|---|----------------------------|-------------------------------------|---|----------------------------|-------------------|---|--|---|
| | | Anti-hypertensive | Prevention of Hyperlipemia Arteriosclerosis | Anti-diabetic | Anti-obesity | Alcohol metabolism Hepatoprotective | Improvement of Hay Fever and atopic dermatitis | Anti-arthritis Pain relief | Anti-inflammation | Whitening effect | Moisturizing effect | Cell activation Improvement of metabolism |
| FERMENTED RICE GERM EXTRACT | P. 25 | | | | | | | | | | | |
| FERULIC ACID | P. 25 | ○ | | ○ | | | | | ○ | ○ | | |
| GAMMA ORYZANOL ORYZA GAMMAX® (USA) | P. 27 | | ○ | ○ | ○ | | ○ | | ○ | UV absorption (down) Tyrosinase activity | ○ | ○ |
| OCTACOSANOL | P. 38 | | | | (up) Lipid metabolism | ○ | | | | | | |
| ORYZA CERAMIDE™ | P. 39 | | | | | | Decrease itching Inhibition of degranulation | | | (down) Melanin production and tyrosinase activity | ○ | (up) Dermal fibroblast growth |
| ORYZA GABA™ | P. 40 | ○ | ○ | | (down) Blood TG | ○ (up) Alcohol metabolism | | | | | | |
| ORYZA PEPTIDE | P. 40 | ACE inhibitor | | | (up)Lipid metabolism | | | | | (down) Melanin production | (down) Ceramidase and hyaluronidase gene expression (up) Collagen production | |
| ORYZA POLYAMINE™ | P. 41 | | ○ | | ○ | | ○ | | ○ | | | ○ |
| ORYZA PROTEIN™ | P. 41 | | ○ | | (up)Lipid metabolism | | | | | | | |
| ORYZA STEROL | P. 42 | | ○ | | | | | | | | ○ | |
| ORYZA TOCOTRIENOL™ | P. 42 | | ○ | | (down) Blood TG | | ○ | | | Anti-pigmentation | (up) hyaluronic acid production | (up) Dermal fibroblast growth |
| PURPLE RICE EXTRACT | P. 46 | | ○ | (down) α-glucosidase, aldose reductase activities | (down) Sugar absorption | | | | ○ | (down) Melanin production and tyrosinase activity | (down)Elastase, hyaluronidase, collagenase activities | |
| RED RICE EXTRACT | P. 48 | | ○ | ○ | | | | | | | (down) Collagenase expression | |
| RICE BRAN OIL | P. 73 | | ○ | | ○ | | | | | ○ | ○ | |
| DEFATTED RICE BRAN※ | P. 74 | | | | ○ | | | | | | | |

※ORYZA DRIM, ORYZA GERM-DLP, -DLS

○ : literature citation

Narration: data obtained by Oryza R&D group. (The Red:New datas)

| Beauty | | | | Anti-aging | | | | | Others | | | | |
|------------------------------------|-----------|----------------|---|--|-------------------------------|--|--|--|---|--|---|--|-----------------------------------|
| Anti-wrinkle | Anti-acne | Anti-glycation | Others(hair, nail) | Prevention of Ophthalmopathy | Improvement of brain function | Anti-cancer | Nutritional fortification Immunostimulating effect Improvement of libido | Anti-oxidative effect | For feeling of cold Swelling Improvement of peripheral circulation | Improvement of dysautonomia/ post menopausal syndrome | Anti-stress Relax Anti-fatigue Sleep | Antibacterial effect Deodorizing effect | Others |
| | | | | | | NK cells proliferation | (up)Phagocytic capacity of macrophages | SOD-like and DPPH radical scavenging abilities | | | | | |
| | | | | | ○ | ○ | | ○ | | | | | |
| | | | | | | | | Suppression of oil peroxidation | ○ | ○ | ○ | | |
| | | | | | ○ | | ○ | | | | ○ | | (up) Endurance |
| ○ | | | | | | (up)Apoptosis /prevention of colon cancer | Anti-influenza effect(BSG) | ○ | | ○ | | | |
| | | | | | ○ | Prevention of colon cancer | | | ○ | ○ | ○ | ○ | |
| | | | | | | | | SOD-like activity | | | | | Liver-protective effect |
| | | ○ | | | | | ○ Autophagy | ○ | | | | | Effect of radiological protection |
| | | | ○ (up)Hair growth Effect of hair cuticle repair | | | | | | | | | | (down) TG |
| | | | | | | ○ | | | | | | | Prevention of BPH |
| (UP) Hyaluronic acid production | | | | | | Prevention of colon cancer and breast cancer | | ○ | ○ | | | | Anti-fatigue |
| | | | Hair dye | Inhibition of retinal disorders/Retinal angiogenesis | | ○ | | SOD-like and DPPH radical scavenging abilities | | | | | (down) Vitamin C oxidation |
| | | | | | | ○ | | SOD-like and DPPH radical scavenging abilities | | | | | (down) TG |
| | | | Skin cell activation | | | | | ○ | | ○ | | | |
| | | | | | | ○ | | | | | | | Relief constipation |

| Appeal point Product name | | Life style-related diseases | | | | | Allergies· Inflammation | | | Beauty | | |
|---|-------|--|---|--|--|---|---|------------------------------|---|--|---|--|
| | | Anti-hypertensive | Prevention of Hyperlipemia Arteriosclerosis | Anti-diabetic | Anti-obesity | Alcohol metabolism Hepatoprotective | Improvement of Hay Fever and atopic dermatitis | Anti-arthritic Pain relief | Anti-inflammation | Whitening effect | Moisturizing effect | Cell activation Improvement of metabolism |
| AGUAJE EXTRACT | P. 16 | | ○ | | | | | | | | | |
| ALPHA-LIPOIC ACID | P. 16 | | | ○ | (down) Fat accumulation, appetite (up) Muscle strengthening | | | | (down) Melanin production | ○ | (up) Dermal fibroblast growth | |
| ASTAXANTHIN | P. 17 | | ○ | | | | | | ○ | ○ | | |
| BIRD'S NEST EXTRACT | P. 18 | | | | | | | | ○ | Moisturizing effect | (up) Dermal keratinocyte / fibroblast growth | |
| BLACK GINGER EXTRACT Staminus® (USA) | P. 19 | Blood pressure -lowering effect | ○ | ○ | ○ | | ○ | ○ | ○ | | | |
| BROCCOLI SPROUT EXTRACT | P. 20 | | | | | | | | (down) Melanin production/ Tyrosinase activity | | | |
| BUCKWHEAT LEAF EXTRACT | P. 20 | ○ | ○ | ○ | (up) Lipid metabolism | | | | | | | |
| CACAO EXTRACT | P. 21 | ○ | ○ | | (down) Fat accumulation, appetite (up) Lipid-metabolism | | | | | | | |
| CHINESE CHIVE SEED EXTRACT | P. 21 | | | | | Suppression of lipid peroxidation | | | (down) Melanin production | | | |
| CISTANCHE TUBULOSA EXTRACT | P. 22 | ○ | Suppression of cholesterol | | (up) Lipid metabolism | ○ | | | (down) Tyrosinase activity | (down) Elastase, hyaluronidase activities | | |
| CITRUS UNSHIU EXTRACT | P. 22 | | ○ | | ○ | | | | (down) Melanin production/ Tyrosinase activity | ○ | (up) Dermal fibroblast growth | |
| COFFEE BEAN EXTRACT | P. 23 | ○ | | (down) α-glucosidase activities and sugar absorption | (down)Fat absorption (up)Lipolysis, fat decomposition | | | | | | | |
| COPRINO™ EXTRACT | P. 23 | | | | | | | (down) IL-6 production | (down) Melanin production/ Tyrosinase activity | | (up) Hyaluronan synthase | |
| EVENING PRIMROSE EXTRACT | P. 24 | | ○ | (down) α-glucosidase, α-amylase, aldose reductase activities | (down) Sugar absorption | | | | (down) Tyrosinase activity | ○ | | |
| EVENING PRIMROSE OIL | P. 24 | | (up) Cholesterol ester production | ○ | ○ | | Improvement of GLA deficiency | | | | ○ | |
| FUCOXANTHIN | P. 26 | | | ○ | ○ | | | | (down) Tyrosinase activity/ Melanogenesis related genes expressions | (down) Elastase, collagenase, hyaluronidase activities | | |

○ : literature citation

Narration: data obtained by Oryza R&D group. (The Red:New datas)

| Beauty | | | | Anti-aging | | | | | Others | | | | |
|---|------------------------|----------------------|--|------------------------------|--|-----------------------------|--|--|---|--|--|---|---|
| Anti-wrinkle | Anti-acne | Anti-glycation | Others (hair, nail) | Prevention of Ophthalmopathy | Improvement of brain function | Anti-cancer | Nutritional fortification Immunostimulating effect Improvement of libido | Anti-oxidative effect | For feeling of cold Swelling improvement of peripheral circulation | Improvement of dysautonomia/post menopausal syndrome | Anti-stress Relax Anti-fatigue Sleep | Antibacterial effect Deodorizing effect | Others |
| | | | | | | | | ○ | ○ | | | | Female hormone like activity, Anti-androgen effect |
| | | | (up) Skin turnover | ○ | | | | <i>In vivo</i> antioxidant | | | | | |
| ○ | | | | ○ | (down) Generation of ROS in brain cells | | | ○ | | | | ○ | Anti- <i>H.pylori</i> |
| (up) Skin elasticity, Dermal collagen density | | | (up) Skin tight junction | | | | | ○ | | | ○ | | |
| | | | (up) Hair growth HGF, IGF-1, VEGF mRNA | | Inhibition of phosphodiesterase 2 activity | ○ | ○ | SOD-like and DPPH radical scavenging abilities | Promotion of blood peripheral circulation Improvement of capillary blood vessel shape | | | ○ | Improvement of gout/Prevention of BPH/Prevention of hair loss |
| | | ○ | | ○ | | (up) Phase II enzymes | | <i>In vivo</i> antioxidant | | | | ○ | Anti- <i>H.pylori</i> |
| | | | | | | | | SOD-like and DPPH radical scavenging abilities | (up) Peripheral circulation | | | | |
| | | | | | | | | SOD-like and DPPH radical scavenging abilities | ○ | | | | |
| | | | | | | | (up) Testosterone secretion/Immunity | ○ | | | Improvement of physical and mental fatigue | | (up) Endurance Detoxification |
| Anti-photo aging | | | (up) Hair growth | ○ | | (up) Testosterone secretion | | SOD-like and DPPH radical scavenging abilities | ○ | ○ | ○ | | (up) Endurance |
| | | | | (up) Human neuroblast growth | | | | SOD-like and DPPH radical scavenging abilities | | | | | Inhibition of osteoporosis |
| | | | | ○ | | Prevention of colon cancer | | SOD-like and DPPH radical scavenging abilities | | | | | |
| Anti-photo aging | | | | | | | | ○ | | | | | |
| | | | | | | (up) Apoptosis | | SOD-like and DPPH radical scavenging abilities | | ○ | | Inhibition of <i>H. pylori</i> fixation and urease activities Deodorization | |
| | | | | | | | | ○ | | Improvement of GLA deficiency | | | |
| (up) Collagen production | (down) Lipase activity | (down) AGE formation | | | | ○ | | SOD-like and DPPH radical scavenging abilities | | | | | Inhibition of osteoporosis |

| Appeal point Product name | | Life style-related diseases | | | | | Allergies· Inflammation | | | Beauty | | |
|--|---------------|-----------------------------|---|---|--|--|--|----------------------------|--|--|-------------------------------|---|
| | | Antihypertensive | Prevention of Hyperlipemia Arteriosclerosis | Anti-diabetic | Anti-obesity | Alcohol metabolism Hepatoprotective | Improvement of Hay Fever and atopic dermatitis | Anti-arthritis Pain relief | Anti-inflammation | Whitening effect | Moisturizing effect | Cell activation Improvement of metabolism |
| FucoRex™ | P. 26 | | | ○ | Inhibition of fat accumulation and gain weight | | | | (down) Tyrosinase activity Melanogenesis related genes expression | (down) Elastase, collagenase, hyaluronidase activities | | |
| JAPANESE BUTTERBUR EXTRACT | P. 28 | Vaso dilatation | | | | (down) Leukotriene, histamine release and TNF-α production | | | | | | |
| KIKU FLOWER EXTRACT | P. 29 | | ○ | | ○ | ○ Improvement of itching in the eyes | ○ Anti-gout. Inhibition of XOD,Uric acid excretive effect | ○ | ○ | | | |
| KIWI SEED EXTRACT | P. 30 | | | | | | | (down) PG-production | (down) Melanin production /Tyrosinase activity | Clinical test in human | | |
| KRILL OIL (ISADA OIL) | P. 31 | ○ | ○ | | Inhibition of fat accumulation and gain weight (PPAR activation) | | | ○ | | | | |
| KUZU LACTIC ACID BACTERIA(ImmnoRise Lactic Acid Bacteria™) | P. 32 | | | | | | | | | | | |
| KUZU LACTIC ACID BACTERIA(SkinBarrier Lactic Acid Bacteria™) | P. 32 | | | | | | | | | (up)Collagen,improve TEWL | | |
| LINGONBERRY EXTRACT | P. 33 | ○ | | | | | | | (down) Melanin production/ Tyrosinase activity | | | |
| LITCHI SEED EXTRACT | P. 33 | | | (down) Aldose reductase activities and elevation of blood sugar | (up) Lipid metabolism | | | | (down) Melanin production/ Tyrosinase activity | (down)Hyaluronidase activity (up)Collagen production | (up) Dermal fibroblast growth | |
| LUTEIN | P. 34 | | | | | | | | | | | |
| MAQUI BERRY EXTRACT MaquiBright™ | P. 35 | | | | | | | | | | | |
| MAQUI BERRY EXTRACT Delphinol™ | P. 36 | | ○ | ○ | | | | ○ | (down) Melanin production | | | |
| MOUNTAIN CAVIAR EXTRACT | P. 37 | | | | Lower Blood Sugar Level After Meals | ○ | | | | | | |
| PASSIONFLOWER EXTRACT | P. 43 | | | ○ | | | | | | | | |
| PERILLA SEED EXTRACT | P. 44 | | | | | | (down) 5 and 12-lipoxygenase/ histamine release | ○ | | ○ | | |
| PERILLA SEED OIL | P. 44 - P. 45 | | ○ | | ○ | | (down) Leukotriene and histamine production | | | ○ | | |

○ : literature citation

Narration: data obtained by Oryza R&D group. (The Red:New datas)

| Beauty | | | | Anti-aging | | | | | Others | | | | |
|--|---|---|---|---|-------------------------------|-------------------|--|---|---|--|--|--|---|
| Anti-wrinkle | Anti-acne | Anti-glycation | Others (hair, nail) | Prevention of Ophthalmopathy | Improvement of brain function | Anti-cancer | Nutritional fortification Immunostimulating effect Improvement of libido | Anti-oxidative effect | For feeling of cold Swelling Improvement of peripheral circulation | Improvement of dysautonomia/ post menopausal syndrome | Anti-stress Relax Anti-fatigue Sleep | Antibacterial effect Deodorizing effect | Others |
| (up) Collagen production | (down) Lipase activity | (down) AGES formation | | | | ○ | | SOD-like and DPPH radical scavenging abilities | | | | | Inhibition of osteoporosis |
| | | | | ○ | | | | ○ | | | | | |
| Expression of Fillagrin, Type IV collagen | | ○ | | ○ | ○ | ○ | | ○ | ○ | | | ○ | Anti-oxidation, Cardioprotective, Neuroprotective |
| (up) Dermal fibroblast growth | (down) 5α-reductase /Lipase activities | | (up) Dermal fibroblast growth /Anti-under eye darkness | | | | | SOD-like and DPPH radical scavenging abilities | | | | | |
| | | | | | ○ | | | ○ | ○ | | | | |
| | | | | | | | ○ | | | | | | |
| | | | | | | | (UP)saliva IgA | | | | | | |
| | | ○ | | | | | | ○ | Thermography | | | | Prevention of urinary tract infection |
| (down) Elastase, collagenase activities | | | | | | (up) Apoptosis | | SOD-like and DPPH radical scavenging abilities <i>In vivo</i> antioxidant | | ○ | | | |
| | | | | Prevention of AMD | | ○ | | ○ | | | | | |
| | | | | Anti-dry eye effect Inhibition of retinal photo-damage | | | | ○ | | | | | |
| Anti-photo aging | | Suppresses AGEs production, AGEs degradative effect | (up)Hair growth, Cosmetic effect | | | | | ○ | | | | | Inhibition of osteoporosis |
| | | | | | | | | | | | | | |
| | | | | | | | ○ | | | | Improvement of circadian rhythm, Improvement of quality of sleep | | Enhance activity in daytime |
| | | | | | | | | SOD-like activity | | ○ | | Anti-cariogenic bacterium Anti-periodontal bacterium Deodorization | |
| | | | | | | | | | | | | | |

| Appeal point Product name | | Life style-related diseases | | | | | Allergies· Inflammation | | | Beauty | | |
|--|-------|-----------------------------|---|---|---|---|---|----------------------------|--|---|--|--|
| | | Anti-hypertensive | Prevention of Hyperlipemia Arteriosclerosis | Anti-diabetic | Anti-obesity | Alcohol metabolism Hepatoprotective | Improvement of Hay Fever and atopic dermatitis | Anti-arthritis Pain relief | Anti-inflammation | Whitening effect | Moisturizing effect | Cell activation Improvement of metabolism |
| POLYAMINE (from wheat germ) | P. 45 | | ○ | | ○ | | ○ | | ○ | | | ○ |
| PSORALEA CORYLIFOLIA FRUIT EXTRACT | P. 46 | | | | | | | | ○ | | (down) hyaluronidase activities | |
| PURPLE TEA EXTRACT Alluvia® (USA) | P. 47 | | | | (down)Fat absorption and accumulation (up)Lipolysis | | | | | (down) Tyrosinase activity | Moisturizing effect | (up) Dermal collagen density |
| PURPLE TEA EXTRACT PurepleForce™ (USA) | P. 47 | | | | | | | | | | | |
| RED GINGER EXTRACT | P. 48 | | | ○ | ○ | ○ | | anti-arthritis pain relief | ○ | | | |
| RESVERATROL | P. 49 | ○ | ○ | ○ | ○ Suppression of adipocyte differentiation | | ○ | | ○ | (down) Melanin production | (down) Elastase, collagenase, hyaluronidase activities | |
| SAFFRON EXTRACT Safleep™ | P. 50 | | | | | | | | | | | |
| SAKURA EXTRACT Florabella® (USA) | P. 51 | | | aldose reductase activities | | | | | (down) NO production | (down) Melanin production/ Tyrosinase activity | | (up) Dermal fibroblast growth/ Collagen lattice production |
| SEABERRY EXTRACT | P. 52 | | | | | | | | | | Inhibition of dryness stimulation | ○ |
| SEABERRY OIL | P. 52 | | ○ | ○ | ○ | | | | | ○ | | |
| SICHUAN PEPPER OIL | P. 53 | | | | | | | | | | | |
| NEW!STRAWBERRY GUAVA EXTRACT FemBerry™ | P. 55 | | | | | | | | | | Skin moisture TEWL improvement | |
| STRAWBERRY SEED EXTRACT | P. 54 | | | (up)GLUT4 and insulin receptor gene expressions | (up)Lipid metabolism/ Lipolysis | | Improvement of epidermal hyperplasia Decrease of eosinophils & mast cells | | | (down)Tyrosinase and its related protein gene expressions | (up)Ceramide synthase and aquaporin gene expressions | |
| TOMATO SEED EXTRACTL LycoLift™ | P. 56 | | ○ | | | | | | Suppression of IgE secretion Improvement of cytokine balance | | Improvement of TEWL | (up)Metabolism of extracellular matrix in skin |
| VINE TEA EXTRACT ResoVine™ | P. 56 | | | | Suppresses fat absorption&fat accumulation, Promotes fat metabolism | Protects liver | | | | | | |
| WALNUT POLYPHENOL | P. 57 | ○ | ○ | ○ | ○ | Suppression of fatty liver Hepatoprotection | | | | (down) Melanin production | | |

○ : literature citation

Narration: data obtained by Oryza R&D group. (The Red:New datas)

| Beauty | | | | Anti-aging | | | | | Others | | | | |
|--|------------------------|---|---|------------------------------------|---|-------------|--|---|--|--|---|---|--|
| Anti-wrinkle | Anti-acne | Anti-glycation | Others(hair, nail) | Prevention of Ophthalmopathy | Improvement of brain function | Anti-cancer | Nutritional fortification Immunostimulating effect Improvement of libido | Anti-oxidative effect | For feeling of cold Swelling Improvement of peripheral circulation | Improvement of dysautonomia/post menopausal syndrome | Anti-stress Relax Anti-fatigue Sleep | Antibacterial effect Deodorizing effect | Others |
| | | ○ | (up) Keratin production | | | | ○ Autophagy | ○ | | | | | Protection from radiation |
| Promote protein expression of Fibrin 4 and Laminin 5 | | | | | | | | | | | | | |
| | | | Anti-aging of skin, Suppresses AGEs production, AGEs degradative effect | | | | | SOD-like and DPPH radical scavenging abilities <i>in vivo</i> antioxidant | | | | | |
| | | | | | | | | | | | Promotes NO production in endothelial cell, Activate AMPK in muscle cells | | Beneficial effect for exercise |
| ○ | | | | | ○ (down) Generation of ROS in brain cells | | | | ○ | | | | |
| | Anti-acne | | | | | ○ | ○ | SOD-like and DPPH radical scavenging abilities | ○ Cardiopathy | ○ | | | Protection of nerve cell |
| | | | | | ○ | | | | | | ○ | ○ | hepato-protective |
| (up) Collagen lattice production | | (down) AGE formation/apoptosis, AGEs degradative effect | Hair care | Inhibition of retinal angiogenesis | | | | ○ | | | | | |
| | | | Inhibition of skin irritation from air pollutants | | | | | | | | | | Improvement of BPH and urinary disturbance Inhibition of overactive bladder, |
| | | ○ Maintain skin elasticity, improve glycation stress | | | | | | | | | | | Improvement of benign prostatic hyperplasia |
| | | | | | | | | | | | | | Inhibition of S.mutans and P.gingivalis |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| (up) Hyaluronan synthase | (down) Sebum secretion | | (up) HSP gene expression barrier function (filaggrin and involucrin expression) | | | | | SOD-like and DPPH radical scavenging abilities | | | | | |
| (up) Collagen and elastin production Maintenance of extracellular matrix in skin | | | | | | | | ○ | | | | | |
| | | | | | | | | | | | | | |
| | | | | ○ | | ○ | | ○ | | | | | Inhibition of osteoporosis |


| Appeal point Product name | | Life style-related diseases | | | | | Allergies· Inflammation | | | Beauty | | |
|-------------------------------|-------|-----------------------------|--|---------------------------------------|---|--|---|-------------------------------|---------------------------------|--|--|--|
| | | Anti-hypertensive | Prevention of Hyperlipemia Arteriosclerosis | Anti-diabetic | Anti-obesity | Alcohol metabolism Hepatoprotective | Improvement of Hay Fever and atopic dermatitis | Anti-arthritis Pain relief | Anti-inflammation | Whitening effect | Moisturizing effect | Cell activation Improvement of metabolism |
| WATERSHIELD EXTRACT | P. 58 | | (down) Cholesterol/ Triglyceride | (down) Elevation of blood sugar | (up)Lipid metabolism/ Adiponectin secretion (down)Fat accumulation/ Cellulite | | | | | (down) Elastase, collagenase, hyaluronidase activities | (up) Dermal fibroblast growth | |
| WHITE JELLY FUNGUS EXTRACT | P. 59 | | ○ | (up) Glycolytic activity | (down)Fat absorption and accumulation/App etite | | | | | Moisturizing effect | | |
| YUZU SEED EXTRACT | P. 60 | | Hypotrigl yceridemic Suppression of cholesterol | (up) Sugar metabolism | (up) Lipid metabolism | | | | (down) Melanin production | ○ | (up) Dermal fibroblast growth | |

○ : literature citation


Narration: data obtained by Oryza R & D group. (The Red: New datas)

| Beauty | | | | Anti-aging | | | | | Others | | | | |
|---|-----------|----------------|--------------------------|------------------------------|-------------------------------|-------------|--|--|---|--|---|--|--|
| Anti-wrinkle | Anti-acne | Anti-glycation | Others(hair, nail) | Prevention of Ophthalmopathy | Improvement of brain function | Anti-cancer | Nutritional fortification Immunostimulating effect Improvement of libido | Anti-oxidative effect | For feeling of cold Swelling Improvement of peripheral circulation | Improvement of dysautonomia/ post menopausal syndrome | Anti-stress Relax Anti-fatigue Sleep | Antibacterial effect Deodorizing effect | Others |
| (up) Collagen/ Hyaluronan synthase | | | | | | | | | | | | | Intestinal motility |
| | | | | | ○ | | | SOD-like and DPPH radical scavenging abilities | | | | | Relief enhance constipation Intestinal motility Protection of gastric mucosa |
| | | | (up) Skin turnover | | | ○ | | | Thermography | | Anti-stress | | |

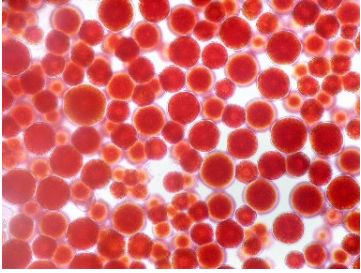
<To relieve PMS and enhance the beauty of the bust! from fascinating Amazon fruit>

| AGUAJE EXTRACT | | Recommended dosage |
|--|---|---|
| (Released in May 2018) | | 100 mg/day (oil) |
| Japanese Patent No. 6742537 (Estrogen activity regulation and indefinite complaints ameliorative agent) | | |
|  | <p>•Relieves PMS and improves bust size <i>(Double-blind comparative study between parallel groups)</i> It has been confirmed to have effects of reducing complaints of general malaise during menstruation, increase the bust size of slim women, and prevent the bust from sagging due to aging (enhance the beauty of the bust).</p> <p>•Improves women's QOL <i>(Open test)</i> Significantly reduced body pains, increased vitality, and improved QOL in both social and mental aspects.</p> <p>•Estrogenic effect (in vitro) •Anti-estrogenic effect (in vitro) •Anti-androgen effect (in vitro)</p> | <p>[Origin of raw material] Fruits of aguaje</p> <p>[Standard component] DMM (Dihydroxy-Methoxy-Methylflavan)</p> <p>[Safety test] (Aguaje extract) •Single-dose test LD50: 2,000 mg/kg or more •Ames test</p> |
| -Extract (oil) -P (powder) -L (emulsion) -Powder (post-ordered production) | | |


<Improved water solubility with no residual solvent! High purity alpha lipoic acid>

| ALPHA-LIPOIC ACID | | Recommended dosage |
|---|---|--|
| (Released in October 2004) | | 50 to 100 mg/day (P) |
| Japanese Patent No. 4849792 (Composition for beauty enhancement) | | |
|  | <p>•Weight management effect <i>(Open test)</i> It has been confirmed to have effects of improving the obesity index, including body fat ratio, impedance, fat amount, hip size, and blood sugar and creatinine level.</p> <p>•Increases muscle weight <i>(in vitro, in vivo)</i></p> <p>•Suppresses fat accumulation (in vitro) •Suppresses pigmentation <i>(in vivo)</i></p> <p>•Antioxidative action (in vitro) •Prevents weight increase <i>(in vivo)</i></p> <p>•Promotes lipid metabolism (in vitro) •Promotes skin turnover (in vitro)</p> | <p>[Origin of raw material] Alpha lipoic acid</p> <p>[Standard component] Alpha lipoic acid</p> <p>[Safety test] (-P) •Single-dose test (male mice) LD50: 405 mg/kg or more •Ames test (-L1) •Single-dose test LD50: 2,000 mg/kg or more</p> |
| -P (powder) -P80 (powder) -WSP7(water-soluble Powder) -L1 (emulsion) | | |




<An amazing anti-oxidative power from algae>

| ASTAXANTHIN (Released in May 2006) | | Recommended dosage 400 to 600 mg/day (P1) |
|---|---|---|
|  | <ul style="list-style-type: none"> • Prevents eye fatigue <i>(Double-blind comparative study between parallel groups, from literature)</i> It has been confirmed to have improving effect on focus adjustment function and reducing subjective symptoms related to eye fatigue. • Takes care of wrinkles and improves skin elasticity <i>(Single-blind study between parallel groups, from literature)</i> It is assumed that the effects are provided by the action to eliminate singlet oxygen species caused by UV-rays. • Improves brain functions <i>(in vivo)</i> • Antioxidative effect <i>(in vivo)</i> • Suppresses arteriosclerosis <i>(in vitro)</i> • Anti-inflammatory effect <i>(in vivo)</i> | <p>[Origin of raw material] <i>Haematococcus pluvialis</i></p> <p>[Standard component] ASTAXANTHIN</p> <p>[Safety test] (-20 oil)</p> <ul style="list-style-type: none"> • Single-dose test LD50: 2,000 mg/kg or more • No ethoxyquin was detected (Detection limit 0.05 mg/kg) |
| -5 (oil) -20 (oil) -P1 (powder) -LS1(emulsion) | | |






<Promote natural immunity and beautify the skin! Swiftlet nest containing natural EGF>

| BIRD'S NEST EXTRACT | | Recommended dosage |
|---|---|--|
| (Released in May 2013) | | 70 mg/day (P) |
| •Japanese Patent No. 6358692 (Tight junctions formation promoter) | | |
|  | <p>•Regenerates skin (<i>Open study</i>) It reduced moisture evaporation from the skin and reduced peeling of dead skin cells off. It also exhibited a tendency to increase skin elasticity and dermal collagen density.</p> <p>•Increases skin cell growth (<i>in vitro</i>)</p> <p>•Wound healing activity (<i>in vitro</i>)</p> <p>•Strengthens tight junctions of the skin (<i>in vitro</i>)</p> <p>•Anti-flu effect (<i>in vitro</i>)</p> | <p>[Origin of raw material] Swiftlet nest</p> <p>[Standard component] Sialic acid</p> <p>[Safety test] (Bird's nest extract)</p> <p>•Single-dose test LD50: 2,000 mg/kg or more</p> <p>•Ames test</p> |
| -P (water-soluble powder) | | |


<Improves motor functions in people across many generations!
 A universal extract from the south an country! >

| | | |
|---|--|---|
| BLACK GINGER EXTRACT | | Application for food with function claims accepted in Japan |
| (Released in May 2012) | Staminus® (USA) | Recommended dosage 100 mg/day (P) |
| <ul style="list-style-type: none"> •Japanese Patent No. 6086953 (AMPK activator) •Japanese Patent No. 67517009 (Energy activator for muscle cells) •Japanese Patent No. 6954960(An inhibitor of TNF-α and IL-6 production and which could be used in muscle inflammation) | | |
|  | <ul style="list-style-type: none"> •Effect of improving motor functions and muscle endurance capacity (<i>Double-blind comparative study between parallel groups</i>) It has been confirmed to have improving effects of motor functions such as grip strength, leg strength, balance, and endurance. •Reduces the feeling of coldness and swelling (<i>Open study</i>) It has been confirmed to recover the normal shape of blood capillaries vessels and improve peripheral blood flow. Also, it has been confirmed to maintain blood pressure at a normal level. •Activate AMPK in muscle cells (<i>in vitro</i>) •Anti-obesity and anti-diabetic activity (<i>in vivo</i>) •Promotes nitric oxide production in vascular endothelial cells (<i>in vitro</i>) | <p>[Origin of raw material] Rhizome of black ginger</p> <p>[Standard component] Total polymethoxyflavones 5,7-Dimethoxyflavone</p> <p>[Safety test] (Black ginger extract)</p> <ul style="list-style-type: none"> •Single-dose test LD50: 2,000 mg/kg or more •28 days chronic toxicity test •Acute toxicity test (6-month continuous administration) • Five times dose(500mg) intake test on human •Ames test |
| -P (powder)  -WSP  (water-soluble powder) | | |




<Super food with excellent to ability activate detoxification enzymes and anti-oxidative effect! >

| BROCCOLI SPROUT EXTRACT | | Application for food with function claims accepted in Japan |
|---|--|--|
| (Released in September 2001) | | Recommended dosage |
| | | 185 mg/day (EX) |
| <ul style="list-style-type: none"> •Japanese Patent No. 5571280 (Sebum production promoter) •Japanese Patent No. 6902392 (Carbonylation inhibitor) | | |
|  | <p>• In vivo antioxidative action <i>(Double-blind comparative study between parallel groups)</i> Three-week ingestion of the extract exhibited an effect of suppressing DNA damage caused by active oxygen and lipids oxidation in the body.</p> <p>• Anti-carbonylation effect <i>(in vitro)</i></p> <p>• Suppresses colorectal cancer <i>(in vivo)</i></p> <p>• Suppresses breast cancer <i>(in vivo)</i></p> <p>• Anti-H. pylori activity <i>(in vivo)</i></p> <p>• Inhibits tyrosinase activity <i>(in vitro)</i></p> <p>• Suppresses melanin production <i>(in vitro)</i></p> | <p>[Origin of raw material] Germinated broccoli Broccoli seeds(only -EX)</p> <p>[Standard component] Sulforaphane</p> <p>[Safety test] (Broccoli sprout extract)</p> <ul style="list-style-type: none"> • Single-dose test LD50: 5,000 mg/kg or more (Broccoli sprout extract-EX) <ul style="list-style-type: none"> • Ames test |
| <ul style="list-style-type: none"> -EXTRACT  (water-soluble powder) -EXTRACT EX  (water-soluble powder) -PS1  (water-soluble powder) -BROCCOLI SPROUT POWDER  -BROCCOLI POWDER | | |


<Strengthen blood vessels and improve blood circulation with the power of Rutin! Effective on blood circulation cold condition and stiff shoulders! >

| BUCKWHEAT LEAF EXTRACT | | Recommended dosage |
|--|---|--|
| (Released in May 2003) | | 240 to 600 mg/day (P) |
|  | <p>• Improves blood circulation <i>(Open test)</i> It has been confirmed to improve peripheral blood circulation and promote the recovery of skin temperature. As a result of the measurement of blood components after ingestion, the cyclic AMP (c-AMP) concentration significantly increased. This suggests potential actions similar to those of some phosphodiesterase inhibitors that to improve renal blood flow (action to dilate peripheral blood vessels).</p> <p>• Antioxidative action <i>(in vitro)</i></p> <p>• Diabetes prevention <i>(in vivo)</i></p> | <p>[Origin of raw material] Leaf of buckwheat or <i>Fagopyrum tataricum</i>, Polygonaceae</p> <p>[Standard component] Rutin</p> <p>[Safety test] (P)</p> <ul style="list-style-type: none"> • Single-dose test LD50: 5,000 mg/kg or more |
| <ul style="list-style-type: none"> -P (powder) -WSP (water-soluble powder) | | |

<A weight loss ingredient developed by focusing on fat decomposition and burning>


| CACAO EXTRACT | | Recommended dosage |
|---|---|---|
| (Released in April 2005) | | 100 to 250 mg/day (P) |
|  | <ul style="list-style-type: none"> • Suppresses fat accumulation <i>(Open test)</i> Four week intake exhibited a tendency to reduce weight, body fat percentage, BMI, amount of fat, obesity level, as well as waist and hip sizes compared to baseline. It exhibited significant effects to reduce body weight, obesity level, and BMI. • Prevents body weight gain <i>(in vivo)</i> • Inhibits fat accumulation <i>(in vitro)</i> • Promotes fat burning <i>(in vitro)</i> • Interferes with fat absorption <i>(in vivo)</i> • Antioxidative effect <i>(in vitro)</i> | <p>[Origin of raw material] Cacao seed</p> <p>[Standard component] Theobromine, polyphenol</p> <p>[Safety test] (-P)</p> <ul style="list-style-type: none"> • Single-dose test LD50: 2,000 mg/kg or more • Repeated dose (28 days) test • Chromosomal aberration test |
| -P (powder)  -WSP  (water-soluble powder) | | |

<A major stamina-enhancing ingredient!
For revitalizing, anti-fatigue, and anti-stress measures! >

| CHINESE CHIVE SEED EXTRACT | | Recommended dosage |
|--|--|---|
| (Released in September 2006) | | 100 mg/day (P, WSP) |
| •Japanese Patent No. 4925761 (Immunostimulator) (Expiration of validity period) | | |
|  | <ul style="list-style-type: none"> • Anti-fatigue <i>(Open study)</i> Slight decrease in lactic acid, a slight rise in noradrenaline, and a significant decrease in cortisol have been observed. • Enhances sexual capacity <i>(in vivo)</i> • Reduces mental fatigue <i>(in vivo)</i> • Reduces physical fatigue <i>(in vivo)</i> • Anti-aging <i>(in vivo)</i> • Boosts immunity <i>(in vivo)</i> • Whitening effect <i>(in vitro)</i> | <p>[Origin of raw material] <i>Allium Tuberosum seed</i></p> <p>[Standard component] <i>S-allyl-L-cysteine</i></p> <p>[Safety test] <i>(Allium Tuberosum seed extract)</i></p> <ul style="list-style-type: none"> • Single-dose test LD50: 2,000 mg/kg or more • Ames test |
| -P (powder) -WSP (water-soluble powder) -Oil (post-ordered production) | | |


<Anti-aging for the entire body!

Cistanche tubulosa, a desert plant with a strong life force>




| CISTANCHE TUBULOSA EXTRACT | | Recommended dosage |
|---|---|---|
| (Released in May 2007) | | 100 to 400 mg/day |
|  | <ul style="list-style-type: none"> • Improves brain functions <i>(Double-blind comparative study between parallel groups)</i> It has been confirmed to have an effect on vascular dementia. • Improves the capabilities to acquire and store memories <i>(in vivo)</i> • Prevents death of brain neurons <i>(in vitro)</i> • Protects nerve cells <i>(in vitro)</i> • Anti-aging <i>(in vivo)</i> • Prevents skin aging <i>(in vitro, in vivo)</i> • Anti-fatigue <i>(in vivo)</i> • Enhances sexual capacity <i>(in vivo)</i> • Boosts immunity <i>(in vivo)</i> • Promote a lipid metabolism <i>(in vivo)</i> | <p>[Origin of raw material] <i>Cistanche Tubulosa</i></p> <p>[Standard component] Echinacoside, acteoside, phenylethanoid glycoside</p> <p>[Safety test] <i>(Cistanche Tubulosa extract)</i></p> <ul style="list-style-type: none"> • Single-dose test LD50: 26.4g/kg or more • Ames test • Micronucleus test • Teratogenicity test • 30 days chronic toxicity test • 180 days chronic toxicity test |
| -P25 (water-soluble powder) | | |

<To combat the aging of women!


Ingredient for prevention of osteoporosis and whitening>

| CITRUS UNSHIU EXTRACT | | Recommended dosage |
|---|---|--|
| (Released in October 2004) | | 200 to 500 mg/day (P) |
|  | <ul style="list-style-type: none"> • Prevents osteoporosis <i>(in vivo)</i> • Suppresses osteoclast differentiation <i>(in vitro)</i> • Tyrosinase inhibition <i>(in vitro)</i> • Suppresses melanin production <i>(in vivo)</i> • Prevents pigmentation <i>(in vivo)</i> • Antioxidative effect <i>(in vitro)</i> • Fibroblast proliferation <i>(in vitro)</i> | <p>[Origin of raw material] <i>Citrus unshiu peel</i></p> <p>[Standard component] β-cryptoxanthin Hesperidin</p> <p>[Safety test] (-P)</p> <ul style="list-style-type: none"> • Single-dose test LD50: 5,000 mg/kg or more <i>(Citrus unshiu extract)</i> • Ames test |
| -P (powder) -L (emulsion) | | |

<Weight control ingredient derived from coffee that is ingested all over the world>

| COFFEE BEAN EXTRACT (Released in October 2003) | | Application for food with function claims accepted in Japan <hr/> Recommended dosage 300 or 450 mg/day(WSP) |
|--|---|--|
| <ul style="list-style-type: none"> •Japanese Patent No. 4499665 (Composition for weight control) •US Patent No. US 8802164 (Composite for weight control)(Expiration of validity period) •Chinese Patent No. CN 1863543(Composite for weight control)(Expiration of validity period) •EP Patent No. EP 1674106 (Composite for weight control)(Expiration of validity period) | | |
|  <p>-P (water-soluble powder) </p> <p>-WSP  (water-soluble powder)</p> | <p>•Fat accumulation suppression (Open test) After a four-week ingestion of the extract, the weight, body fat ratio, impedance, fat amount, obesity level, waist size, and the thickness of abdominal subcutaneous fat in subjects showed a tendency of decreasing as compared to baseline. (Double-blind comparative study between parallel groups)</p> <p>An eight-week ingestion test exhibited that the extract significantly improved the body weight, fat ratio, visceral fat, BMI, and arteriosclerotic index in subjects.</p> <p>•Suppresses fat absorption, inhibits fat accumulation, promotes fat decomposition and fat burning (in vitro, in vivo)</p> <p>•Diabetes prevention (in vitro)</p> <p>•Antioxidative effect (in vitro)</p> | <p>[Origin of raw material] Coffee tree seed</p> <p>[Standard component] Chlorogenic acid, chlorogenic acids</p> <p>[Safety test] (Green coffee bean extract)</p> <ul style="list-style-type: none"> •Single-dose test LD50: 1,500 mg/kg or more •Ames test •28 days chronic toxicity test |

<Contains a large amount of ergothioneine that is currently in the spotlight
A beautifying ingredient from a precious high-class mushroom>

| COPRINO™ EXTRACT (Released in October 2010) | | Recommended dosage <hr/> 10 to 30 mg/day (P0.5) |
|--|---|---|
|  <p>-Powder</p> <p>-P0.5 (water-soluble powder)</p> | <ul style="list-style-type: none"> •Anti-photoaging effect (in vitro, in vivo) •Suppresses melanin production (in vitro) •Tyrosinase inhibition (in vitro) •Anti-inflammatory effect (in vitro) | <p>[Origin of raw material] Coprinus comatus</p> <p>[Standard component] Ergothioneine</p> <p>[Safety test] (Coprinus comatus extract)</p> <ul style="list-style-type: none"> •Single-dose test LD50: 2,000 mg/kg or more •Ames test |

<Evening primrose extract to moderate the rise in blood glucose levels after meals>

EVENING PRIMROSE EXTRACT




***Health functional food material separately approved by Korean Food & Drug Administration**

Recommended dosage

100 to 300 mg/day (P)

(Released in September 2000)

- Japanese Patent No. 4873824 (Carbohydrate absorption inhibitor and its manufacturing method)(Expiration of validity period)
- US Patent No. US6932990 (Carbohydrate absorption inhibitor)(Expiration of validity period)
- Chinese Patent No. CN1268351 (Carbohydrate absorption inhibitor)(Expiration of validity period)
- EP Patent No. EP1312374 (Carbohydrate absorption inhibitor)(Expiration of validity period)

| | | |
|---|---|--|
|  | <p>•Controls blood glucose levels (Double-blind single intake study) In a sugar tolerance test, the extract was confirmed to significantly suppress increase of blood glucose levels after meals.</p> <p>•Action to inhibit glycolytic enzyme (in vitro)</p> <p>•Aldose reductase inhibition (in vitro)</p> <p>•Suppresses increase of blood glucose levels (in vivo)</p> <p>•Tyrosinase inhibition (in vitro)</p> | <p>[Origin of raw material] Evening primrose seed</p> <p>[Standard component] Polyphenols</p> <p>[Safety test] (P)</p> <ul style="list-style-type: none"> •Single-dose test LD50: 5,000 mg/kg or more •Chromosomal aberration test •Ames test •Mouse micronucleus test |
| <p>-P (powder) </p> <p>-WSPS  (water-soluble powder)</p> <p>-OIL</p> | | |

<Block *Helicobacter pylori* by urease inhibitory action and anti-bacterial action! >

EVENING PRIMROSE EXTRACT


(Anti-*H.pylori*)

Recommended dosage




90 to 120 mg/day (P)

(Released in October 2003)



- Japanese Patent No. 4541662 (Anti-*H.pylori* composition)(Expiration of validity period)

| | | |
|---|---|---|
|  | <p>•Anti-<i>H.pylori</i> effect (Open study) It has been confirmed to reduce <i>H.pylori</i> in the stomach.</p> <p>•Inhibits the growth of <i>H.pylori</i> (in vitro)</p> <p>•Urease inhibition (in vitro)</p> <p>•Suppresses attachment of <i>H.pylori</i> (in vitro)</p> <p>•Suppresses <i>H.pylori</i> colonization (in vitro)</p> <p>•Eliminates <i>H.pylori</i> (in vivo)</p> <p>•Anti-tumoractivity (in vivo)</p> | <p>[Origin of raw material] Evening primrose seed</p> <p>[Standard component] Polyphenol</p> <p>[Safety test] (PH)</p> <ul style="list-style-type: none"> •Single-dose test LD50: 5000 mg/kg or more •Chromosomal aberration test •Ames test •Micronucleus test on mice |
| <p>-PH (powder)</p> <p>-WSPH (water-soluble powder)</p> | | |

<New possibilities of rice germ have been discovered through traditional Japanese fermentation technique by *Apergillus oryzae*! >



| FERMENTED RICE GERM EXTRACT | | <u>Recommended dosage</u> |
|--|---|--|
| (Released in September 2001) | | 200 to 500 mg/day (P) |
| <ul style="list-style-type: none"> ●Japanese Patent No. 6604806 (To provide a method for producing β-sitosterol glucoside containing composition) ●Japanese Patent No. 6584899 (The method of stigmasterol Containing Compositions) ●Japanese Patent No. 6579619 (The method of glucosylceramide-containing composition) ●Japanese Patent No. 6645791 (Producing method of composition containing ergosterol peroxide) ●Japanese Patent No. 7104193 (Muscle enhancer) | | |
|  | <ul style="list-style-type: none"> • Immunostimulatory effect <i>(in vitro)</i> • Prevents bacterial infections <i>(in vitro)</i> • Prolyl endopeptidase inhibitory activity <i>(in vitro)</i> • Promotes muscle formation <i>(in vitro)</i> • Maintains muscle mass <i>(in vivo, in vitro)</i> | <p>[Origin of raw material] Rice germ</p> <p>[Standard component] Polyphenol</p> <p>[Safety test] (-P) • Single-dose test LD50: 5,000 mg/kg or more</p> |
| -P (powder)  -WSP  (water-soluble powder) | | |

<Polyphenol that helps to prevent Alzheimer's disease and improve brain function>

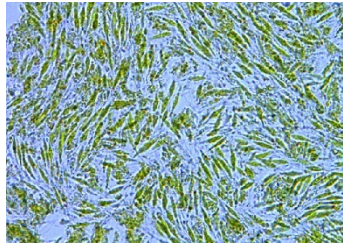
| FERULIC ACID | | <u>Recommended dosage</u> |
|--|--|---|
| (Released in March 1998) | | - |
| ●Japanese Patent No. 1371867(Oil-solubilized skin rub for ferulic acid ester)(Expiration of validity period) | | |
|  | <ul style="list-style-type: none"> • Prevents color degradation and discoloration of foods <i>(in vitro, in vivo)</i> • whitening effect <i>(in vivo)</i> • Blood sugar lowering activity <i>(in vivo)</i> • Blood pressure lowering activity <i>(in vivo)</i> • Improves brain functions <i>(in vivo)</i> | <p>[Origin of raw material] Rice seed</p> <p>[Standard component] Ferulic acid</p> <p>[Safety test] • Single-dose test LD50: 857 mg/kg or more • Ames test</p> |
| -Ferulic Acid  | | |

<Prevent metabolic syndrome!




A carotenoid from sea Algae with strong anti-oxidative activity>

| FUCOXANTHIN Application for food with function claims accepted in Japan | | |
|--|--|---|
| (Released in September 2008) | Recommended dosage 60 mg/day (5KW) | |
| Japanese Patent No.7246965 (Sarcopenia obesity preventive/improving agent) | | |
|  | <ul style="list-style-type: none"> • Action to suppress fat accumulation (Double-blind comparative study between parallel groups) Four-week ingestion exhibited a selective anti-obesity effect on visceral fat. • Increases the UCP-1 activity in brown adipocytes (in vivo) • Whitening effect (in vitro, in vivo) • Anti-glycation activity (in vitro) • Antioxidative activity (in vitro) • Anti-acne activity (in vitro) | <p>[Origin of raw material] Japanese kelp or wakame seaweed belong to algae</p> <p>[Standard component] Fucoxanthin</p> <p>[Safety test] (Kelp extract)</p> <ul style="list-style-type: none"> • Single-dose test LD50: 2,000 mg/kg or more • 90 days chronic toxicity test • Micronucleus test |
| -5KW (oil)  -1KW (oil) -P1KW (powder) -WSP0.1KW (water-soluble powder) | | |


<Worlds' Pioneer! Fucoxanthin extracted and purified from microalgae >

| FucoRex™ Application for food with function claims accepted in Japan | | |
|---|---|---|
| (Released in May 2017) | Recommended dosage 100 mg/day (3) | |
|  | <ul style="list-style-type: none"> • Suppresses visceral fat accumulation (in vivo) • Hepatoprotective effect (in vivo) • Skin beautifying activity (in vivo) | <p>[Origin of raw material] Microalgae</p> <p>[Standard component] Fucoxanthin</p> <p>[Safety test] (Microalgae extract)</p> <ul style="list-style-type: none"> • Single-dose test LD50: 1,000 mg/kg or more • Ames test |
| -3 (oil) -1 (oil) | | |

<"Rejuvenating vitamin" contained only in rice oil>

| | | |
|---|---|---|
| GAMMA ORYZANOL ORYZA GAMMAX® (USA) | | Recommended dosage 10 to 800 mg/day |
| (Released in September 1982) | | |
| •Japanese Patent No. 6639892 (γ-Oryzanol soluble liquid composition) | | |
|  | <ul style="list-style-type: none"> • Action to relieve postmenopausal disorders and dysautonomia (Multiple human clinical trials, from literature) • Cholesterol lowering effect <i>(Multiple human clinical trials, from literature)</i> • Muscle-building <i>(Double-blind comparative study between parallel groups, from literature)</i> • Antioxidative activity (in vitro) • Prevents irritable bowel syndrome (in vivo) • Anti-allergic effect (in vivo) | <p>[Origin of raw material] Rice bran oil</p> <p>[Standard component] Gamma-Oryzanol</p> <p>[Safety test]</p> <ul style="list-style-type: none"> • Single-dose test LD50: 10,000mg/kg or more • 180 days chronic toxicity test • 90 days chronic toxicity test • Teratogenicity test • Carcinogenicity test |
| -Gamma-Oryzanol  (Powder) | | |
| -GAMMAX (powder)  <u>[Compliant with U.S. FDA GRAS]</u> | | |

<Safe and reliable anti-allergic ingredient made in Japan>

| JAPANESE BUTTERBUR EXTRACT (Released in April 2004) | | Recommended dosage 250 mg/day (P) |
|--|---|---|
| •Japanese Patent No. 4822246 (Anti-allergic agent) | | |
|  | <ul style="list-style-type: none"> • Anti-allergic activity (helps hay fever) (<i>Open study</i>) It has been confirmed to reduce sneezing, eye itch, and improve the sense of smell. It has also been confirmed to reduce the ratio of the blood eosinophil and basophil. • Action to suppresses mast cell degranulation (<i>in vitro</i>) • Suppresses leukotrienes release (<i>in vitro</i>) • Suppresses TNF-α production (<i>in vitro</i>) • Anti-inflammatory effect (<i>in vivo</i>) • Suppresses vascular and tracheal contractions (<i>in vitro</i>) | <ul style="list-style-type: none"> [Origin of raw material] Aerial part of Japanese butterbur [Standard component] Total polyphenols Total terpenoids [Safety test] (Japanese butterbur extract) <ul style="list-style-type: none"> • Single-dose test LD50: 2,000 mg/kg or more • 28 days chronic toxicity test |
| <ul style="list-style-type: none"> -P (powder) -WSP (water-soluble powder) | | |

<Skin care ingredient that prevents gout and cares deep layers of the skin>

KIKU FLOWER EXTRACT

Application for food with function claims accepted in Japan


(Released in May 2014)

Recommended dosage

100 mg ~ 200mg/day (P)

•Japanese patent No. 6452014 (Fibronectin expression promoting material)






-P (powder) 
 -WSP (water-soluble powder)


- **Anti-gout**
(Double-blind comparative study between parallel groups)
 It has been confirmed to possess uric acid lowering activity .
- **Anti-allergic effect**
(Double-blind comparative study between parallel groups)
 Improves itching in the eyes
- **Inhibits enzyme which synthesizes uric acid (xanthine oxidase) (in vitro)**
- **Improves symptoms of gout (in vivo)**
- **Suppresses uric acid production (in vitro)**
- **Uric acid excretive effect (in vivo)**
- **Improves quality of sleep (in vivo)**
- **Anti-wrinkle and skin beautifying effect (in vitro)**

- [Origin of raw material]**
 Flower buds or flowers of chrysanthemum
- [Standard component]**
 Luteolin
- [Safety test]**
 (Chrysanthemum flower extract)
- Single-dose test
 LD50: 2,000 mg/kg or more
- 28 days chronic toxicity test
- Ames test
- Five times (500 mg, 1,000mg) dose intake test on human


<A natural ingredient with the ability to prevent acne, reduce wrinkles, and prevent dark pigmentation under the eyes>

| KIWI SEED EXTRACT | | Recommended dosage |
|---|--|---|
| (Released in September 2005) | | 50 to 100 mg/day (P) |
| <ul style="list-style-type: none"> • Japanese Patent No. 4925692 (Composition for skin improvement) • Japanese Patent No. 5462430 (Anti-inflammatory agent and painkiller) | | |
|  | <ul style="list-style-type: none"> • Effect on sebum secretion (anti-acne) (<i>Open study</i>) Inhibited 5α-reductase that generates DHT which is related to sebaceous secretion and suppressed excessive secretion of sebum. • Anti-wrinkle action (<i>Open study</i>) Effects observed included reduction of wrinkles, normalization of skin pH and skin condition. • Action to prevent dark pigmentation under eyes (<i>Open study</i>) The extract was confirmed to increase the brightness of skin surface around the eyes, suggesting that it can prevent dark pigmentation under eyes. • Inhibits <i>C. acnes</i>-derived lipase (<i>in vitro</i>) • Induces the proliferation of fibroblasts (<i>in vitro</i>) • Tyrosinase inhibitory effect (<i>in vitro</i>) • Suppresses melanin production (<i>in vitro</i>) • Reduces pigmentation (<i>in vivo</i>) • Anti-inflammatory effect (<i>in vitro</i>) | <p>[Origin of raw material] Kiwi seed</p> <p>[Standard component] Quercitrin Polyphenols</p> <p>[Safety test] (Kiwi seed extract)</p> <ul style="list-style-type: none"> • Single-dose test LD50: 2,000 mg/kg or more • Ames test <p>(Oil)</p> <ul style="list-style-type: none"> • Single-dose test LD50: 5,000mg/kg or more |
| -P (powder)  -WSP  (water-soluble powder) -OIL | | |



<Japanese krill oil containing a new component, 8-HEPE>

| KRILL OIL (ISADA OIL) | | Recommended dosage |
|---|---|---|
| (Released in May 2018) | | 210 mg/day (oil) |
|  | <ul style="list-style-type: none"> • Improving effect on dyslipidemia <i>(Single-blind comparative study between parallel groups)</i> It has been confirmed to improve blood LDL-cholesterol, triglycerides, and free fatty acids levels. As for body parameters, it has been confirmed to reduce the body fat ratio, waist size, and hip size. • Improving effect in brain functions <i>(Double-blind comparative study between parallel groups, from literature)</i> It has been confirmed to improve memory and the ability of simple calculation. • Anti-obesity effect <i>(in vivo)</i> • Improves the quality of sleep <i>(in vivo)</i> | <p>[Origin of raw material] Isada (Pacific Krill) <i>Euphausia pacifica</i></p> <p>[Standard component] 8-HEPE</p> <p>[Safety test] (Isada oil)</p> <ul style="list-style-type: none"> • Single-dose test LD50: 2,000 mg/kg or more • Ames test |
| -OIL | | |




< **Moisturize the skin, improve barrier function, activate immunity, reduce the infection!** >

| Kuzu Lactic Acid Bacteria | | Recommended dosage |
|---|---|--|
| (Released in November 2020) | | 50mg/day (P) |
|  | <p><u>SkinBarrier Lactic Acid Bacteria™</u></p> <ul style="list-style-type: none"> • Skin care effect <p>(Double-blind comparative study between parallel groups)</p> <p>It has been confirmed that the TEWL (cheek), saliva IgA, collagen score, and questionnaire (gloss, firmness, dryness) were improved.</p> <ul style="list-style-type: none"> • Moisturize the skin, improve barrier function (<i>in vivo</i>) <p>(Promote the protein expression of cornified envelope, improve TEWL)</p> | <p>【Origin of raw material】</p> <p>Lactic Acid Bacteria (derived Kuzu)</p> <p>【Standard component】</p> <p>Bacteria No: 2×10^{12} / g</p> <p>【Safety test】</p> <p>(SkinBarrier Lactic Acid Bacteria™)</p> <ul style="list-style-type: none"> • Ames test • Human test 50 mg/kg 6 weeks • Single-dose test <p>LD50: 2,000 mg/kg or more</p> |
| -P (powder) | <p><u>ImmnoRise Lactic Acid Bacteria™</u></p> <ul style="list-style-type: none"> • Reduce the risk of virus infection <p>(Parallel group comparison test)</p> <p>It was confirmed that the morbidity of virus infection was significantly reduced in the children who took the ImmnoRise Lactic Acid Bacteria compared to those who did not take ImmnoRise Lactic Acid Bacteria.</p> <ul style="list-style-type: none"> • Immune activation (produce IL-12) <p>(<i>in vitro</i>)</p> <ul style="list-style-type: none"> • Reduce amount of influenza virus, increase the value of neutralizing antibody against virus (<i>in vivo</i>) | |




<A berry from Northern Europe containing a whitening ingredient “Arbutin”>

| LINGONBERRY EXTRACT | | Recommended dosage |
|---|--|---|
| (Released in April 2009) | | 50 to 100 mg/day (P0.5) |
| •Japanese Patent No. 5525716 (Pigmentation suppressor) | | |
|  | <p>•Improves blood circulation (Open test) Single dose ingestion of the extract improved human skin temperature after loading hypothermic condition.</p> <p>• Effect of suppression of melanin production (in vitro, in vivo)</p> <p>•Tyrosinase inhibition (in vitro)</p> <p>•Prevents pigmentation (in vivo)</p> | <p>[Origin of raw material] Lingonberry juice or fruit</p> <p>[Standard component] Arbutin</p> <p>[Safety test] (-P0.5)</p> <ul style="list-style-type: none"> •Single-dose test LD50: 2,000 mg/kg or more •Ames test |
| <ul style="list-style-type: none"> -J  (concentrated fruit juice) -PJ (water-soluble powder) -P0.5 (water-soluble powder) | | |




<The beautifying ingredient which Yang Guifei loved. Supports the skin beauty with a wide range of beautifying functions>

| LITCHI SEED EXTRACT | | Recommended dosage |
|---|---|--|
| (Released in November 2001) | | 150 to 300 mg/day (P, WSP) |
| •Japanese Patent No. 3708036 (Composition for skin improvement)(Expiration of validity period) •Japanese Patent No. 3953387 (Elastase inhibitor)(Expiration of validity period) •Japanese Patent No. 4982052 (Composition for skin improvement)(Expiration of validity period) | | |
|  | <p>•Effects to beautify the skin (Open study) It has been confirmed to improve the moisture and pH of the skin.</p> <p>•Collagen production effect (in vitro)</p> <p>•Collagenase inhibition (in vitro)</p> <p>•Elastase inhibition(in vitro)</p> <p>•Hyaluronidase inhibition (in vitro)</p> <p>•Antioxidative effect(in vitro)</p> <p>•Whitening effect (in vitro, in vivo)</p> <p>•Diabetes prevention (in vitro, in vivo)</p> | <p>[Origin of raw material] Litchi seed</p> <p>[Standard component] Polyphenols</p> <p>[Safety test] (Litchi seed extract)</p> <ul style="list-style-type: none"> •Single-dose test LD50: 5,000 mg/kg or more •28 days chronic toxicity test •Ames test •Chromosomal aberration test |
| <ul style="list-style-type: none"> -P (powder)  -WSP  (water-soluble powder) | | |

<Prevent age-related Macular degeneration and Cataract.
High absorbable ingredient “lutein ester”>




| Application for food with function claims accepted in Japan | |
|---|---|
| LUTEIN | |
| (Released in May 2002) | |
| Recommended dosage | |
| 15 to 20 mg/day (P80) | |
| 50 or 100mg/day (20F) | |
|  | <p>•Prevent age-related macular degeneration (AMD) and cataract <i>(Multiple human clinical trials, from literature)</i></p> <p>It is considered that AMD can be prevented by supplying lutein to the macula as its amount decreases due to aging. The mechanism to prevent cataract has been unknown.</p> |
| <p>-P80 (powder) </p> <p>-P40 (powder)</p> <p>-L8 (water-soluble emulsion, post-ordered production)</p> <p>-20F(oil) </p> | <p>[Origin of raw material] Marigold flowers</p> <p>[Standard component] lutein (ester), Total carotenoids (ester) (Only -20F) Lutein (free), Zeaxanthin (free)</p> <p>[Safety test] (-P80) •Single-dose test LD50: 5,000 mg/kg or more</p> |

<For the treatment of dry eyes:
A wild berry from the Patagonian wilderness in South America>




| | | |
|--|---|--|
| MAQUI BERRY EXTRACT | | Application for food with function claims accepted in Japan |
| (Released in May 2012) | MaquiBright™ | Recommended dosage 30~60 mg/day (P35) |
| <ul style="list-style-type: none"> ●Japanese Patent No. 6265500 (Dry eye prevention and treatment agent) ●EP Patent No. EP2937091 (Dry eye prevention and treatment agent) ●CANADA Patent No. CA2895353 (Dry eye prevention and treatment agent) ●ISRAEL Patent No. 239478 (Dry eye prevention and treatment agent) ●Korea Patent No. 10-2070479 (Prevention and treatment agent of dry eye) ●US Patent No. US11033566 (Prevention and treatment agent of dry eye) | | |
|  | <p>MaquiBright</p> <ul style="list-style-type: none"> • Improve conditions of dry eye and eyestrain (Double-blind comparative study between parallel groups) A test was carried out on healthy adult men and women involved in VDT work for four hours a day or longer who feel dryness and strain in their eyes. As a result, ingestion of delphinidin 3,5-diglucoside (4 mg/day) significantly increased tear secretion and improved “bothersome ocular symptoms” and “feeling of a foreign matter in the eye” before starting VDT work and relieved shoulder strain as compared to placebo. • Suppresses photodamage in visual cells (<i>in vitro</i>) • Improves dry eye (<i>in vitro, in vivo</i>) | <p>[Origin of raw material] Maqui berry fruit</p> <p>[Standard component] Total anthocyanins Total delphinidins</p> <p>[Safety test] (Maqui berry extract)</p> <ul style="list-style-type: none"> • Single-dose test LD50: 2,000 mg/kg or more • Chromosomal aberration test • Five times (300 mg)dosage intake test on human • Ames test • 90 days chronic toxicity test |
| -P35  (water-soluble powder) | | |
| -J  (concentrate fruit juice) | | |

< Cosmetical effect :


A wild berry from the Patagonian wilderness in South America>

| MAQUI BERRY EXTRACT (Released in May 2012) Delphinol™ | | Recommended dosage 60 mg/day (P35) |
|--|---|--|
| ●Japanese Patent No. 6144536 (Whitening agent) | | |
|  <p>-P35  (water-soluble powder) -J  (concentrate fruit juice)</p> | <p>Delphinol™ Cosmetical effect <i>(Double-blind comparative study between parallel groups)</i> Ameliorating effects on skin brightness and redness.</p> <p>• Prevents metabolic syndrome <i>(Double-blind comparative study between parallel groups)</i> Blood glucose, hemoglobin A1c, and HDL-cholesterol levels were improved.</p> <p>• Promotes hair growth <i>(in vitro)</i></p> <p>• Suppresses aging of skin <i>(in vitro)</i></p> <p>• Suppresses AGEs production <i>(in vitro)</i></p> <p>• AGEs degradative effect <i>(in vitro)</i></p> <p>• Antioxidative effect <i>(in vitro)</i></p> <p>• Anti-inflammatory effect <i>(in vitro)</i></p> <p>• Anti-diabetes effect <i>(in vivo)</i></p> <p>• Prevents arteriosclerosis <i>(in vitro)</i></p> <p>• Prevents osteoprosis <i>(in vivo)</i></p> | <p>[Origin of raw material] Maqui berry fruit</p> <p>[Standard component] Total anthocyanins Total delphinidins</p> <p>[Safety test] (Maqui berry extract)</p> <p>• Single-dose test LD50: 2,000 mg/kg or more</p> <p>• Chromosomal aberration test</p> <p>• Five times (300 mg) dosage intake test on human</p> <p>• Ames test</p> <p>• 90 days chronic toxicity test</p> |





<Mono sugar absorption inhibition from *Mountain Caviar* !
 For people who are worried about postprandial glucose spiking! >

| MOUNTAIN CAVIAR EXTRACT <i>VegCaviar™</i> | | Recommended Dosage |
|--|---|---|
| (Released in October 2022) | | 200-400 mg/day (P) |
|   | <ul style="list-style-type: none"> • Lowers postprandial blood sugar level (<i>Open test</i>) It could reduce the blood sugar level significantly 30 and 60 minutes after intake glucose compared to the placebo group. <ul style="list-style-type: none"> • Suppresses blood sugar level rise (delays sugariness absorption) (<i>in vivo</i>) • Anti-obesity (<i>in vivo</i>) • Antipruritic effect (<i>in vivo</i>) • Suppresses TG absorption (<i>in vivo</i>) | <ul style="list-style-type: none"> 【Origin of raw material】 Fruits of <i>Kochia scoparia</i> (L.) 【Standard component】 Momordin Ic 【Safety test】 (P) • Single-dose test LD50 : 2000 mg/kg or more • Ames test • Five times (1,000mg) dose intake test on human |
| -P (water-soluble powder)  | | |







**<Increase physical strength and improve motor functions!
A sports-assisting ingredient>**

| OCTACOSANOL (Released in October 2000) | | Recommended dosage 40 to 100 mg/day (P10) |
|--|---|--|
|  | <p>• Ability to generate energy and muscle growth</p> <p><i>(Multiple human clinical trials, from literature)</i></p> <p>The following effects have been confirmed.</p> <ol style="list-style-type: none"> ① Enhances physical endurance, vitality, and strength ② Improves reflexes and sensitivity ③ Increases resistance to stress ④ Stimulate the secretion of sexual hormones and reduce muscle spasms ⑤ Improve functions of muscles including cardiac muscle ⑥ Reduce systolic blood pressure ⑦ Improve basal metabolic rate | <p>[Origin of raw material] Seed of rice, Gramineae</p> <p>[Standard component] Octacosanol</p> <p>[Safety test] • Single-dose test LD50: 2,000 mg/kg or more</p> |
| <ul style="list-style-type: none"> - P1 (powder),- P8 (powder) - P10 (powder) - P12 (powder) - P30 (powder) - P45 (powder) - P60 (powder) - L0.5 (emulsion) | | |



<Maintain moisture and boost barrier function! “Edible ceramide”>

| | | |
|--|--|--|
| ORYZA CERAMIDE™ | | Application for food with function claims accepted in Japan |
| (Released in September 1999) | | Recommended dosage 40 mg/day (PCD,PT,WSP) |
| •Japanese Patent No. 6723737 (Glucosylceramide production and metabolic gene expression promotive agent used on the skin) | | |
|  | <p>•Moisturizing effect <i>(Double-blind comparative study between parallel groups)</i> It is expected to enhance skin barrier function and provide a moisturizing effect by reconstructing ceramides, promoting the formation of cornified envelopes, and enhancing the function of tight junctions in epidermis.</p> <p>• Skin beautifying effect (improve acne and skin condition) through the use with kiwi seed extract <i>(Open study)</i></p> <p>• Improving cold symptoms and immunity score <i>(Double-blind comparative study between parallel groups)</i></p> <p>•Barrier Enhancement <i>(in vivo)</i></p> <p>•Whitening effect <i>(in vitro)</i></p> <p>•Reduces symptoms of atopic dermatitis <i>(in vivo)</i></p> <p>•Anti-influenza effect(BSG)<i>(in vivo)</i></p> | <p>[Origin of raw material] Rice bran and rice germ</p> <p>[Standard component] Glycosphingolipids</p> <p>[Safety test] (Rice extract)</p> <ul style="list-style-type: none"> •Single-dose test LD50: 5,000mg/kg or more •28 days chronic toxicity test |
| -PT (powder) -PCD (powder)  -WSP  (water-soluble powder) -L (emulsion) -L0.8 (emulsion)  | | |



<Worlds' pioneer! Success in concentration of rice-derived GABA! >

| | | | |
|---|---|---|--|
| ORYZA GABA™ (Released in September 1996) | | Application for food with function claims accepted in Japan | Recommended dosage 13.7 to 111 mg/day (HC90) |
| •Japanese Patent No. 2810993 (Degreased food material enriched with γ -aminobutyric acid)(Expiration of validity period) | | | |
|  | •Tranquillizing effect <i>(Double-blind comparative study between parallel groups)</i> It has been confirmed to enhance parasympathetic nerve activities to ease tensions and provide a relaxing effect. | [Origin of raw material] Rice germ [Standard component] Gamma-aminobutyric acid (GABA) [Safety test] (-HC90, -Germ P) •Single-dose test LD50: 2,000 mg/kg or more (-HC5, -C) •Single-dose test LD50: 5,000mg/kg or more (-HC90) •Ames test | |
| | •Suppresses blood pressure elevation <i>(Double-blind comparative study between parallel groups)</i> It has been confirmed to suppress the activities of sympathetic nerves and lower blood pressure by activating GABA (B) receptors in peripheral nerves and controlling the release of noradrenaline. | | |
| -HC5 (water-soluble powder)  -HC90(water-soluble Powder)  - C (water-soluble powder)  -Germ P (germ powder)  - F95R(water-soluble Powder)  | | | |



<Featuring high absorption and excellent water solubility! Peptides which are improve to enhance skin conditions>

| | | |
|--|--|---|
| ORYZA PEPTIDE™ (Released in September 2009) | | Recommended dosage 500 to 1000 mg/day (P60) |
| •Japanese Patent No. 6811455 (N-acetyltransferase activator) | | |
|  | •Weight-controlling action <i>(Double-blind comparative study between parallel groups)</i> Combination of ingestion of a beverage containing 1 gram of Oryza Peptide and light exercise demonstrated weight loss, as and as subcutaneous fat reduction, while improving body shape. | [Origin of raw material] Rice [Standard component] Peptides [Safety test] (-P60) •Single-dose test LD50: 5,000mg/kg or more •Ames test |
| | •Anti-obesity action (<i>in vivo</i>) •Whitening and beautifying effects (<i>in vitro, in vivo</i>) •Liver-protective effect (<i>in vitro</i>) •Antioxidative effect (<i>in vitro</i>) | |
| -P60  (water-soluble powder) | | |


<Use this to promote good conditions of hair, nails and eyelashes!
A versatile beautifying ingredient>

| ORYZA POLYAMINE™ (Released in May 2012) | | Recommended dosage 50 to 100 mg/day (P) |
|--|--|--|
| •Japanese Patent No. 6192036 (Ingredient of cosmetics for eyelashes and cosmetics for eyelashes using it) | | |
|  | <ul style="list-style-type: none"> • Improves nail conditions <i>(Double-blind comparative study between parallel groups)</i> It has been confirmed to improve the conditions of the nail by increasing the ceramide content in the nail and to prevent moisture evaporation. • Promotes hair growth <i>(in vitro)</i> • Anti-glycation effect <i>(in vitro)</i> | <p>[Origin of raw material] Rice germ</p> <p>[Standard component] Polyamine</p> <p>[Safety test] (Rice germ extract)</p> <ul style="list-style-type: none"> • Single-dose test LD50: 2,000 mg/kg or more • Ames test |
| -P (water-soluble powder)  | | |


<Allergen-free, gluten-free, and non-GMO “rice-derived protein”>

| ORYZA PROTEIN™ (Released in September 2009) | | Recommended dosage 500 to 1,000 mg/day (P70) |
|--|--|---|
|  | <ul style="list-style-type: none"> • Prevents weight gain <i>(in vivo)</i> • Lowers cholesterol levels <i>(in vivo)</i> <p>*The emulsifying capacity of Oryza Protein® was compared with soy protein, wheat protein, milk protein, and pea protein. As a result, Oryza Protein was confirmed to have an emulsifying capacity which is equivalent to or higher than the proteins mentioned above.</p> | <p>[Origin of raw material] Rice</p> <p>[Standard component] Protein</p> <p>[Safety test] (-P70)</p> <ul style="list-style-type: none"> • Single-dose test LD50: 2,000 mg/kg or more • Melamine analysis (not detected) |
| -P70 (powder)  -P80 (powder) | | |

<100% rice-derived sterol>

| ORYZA STEROL | | Recommended dosage |
|--|---|---|
| (Released in September 1999) | | 500 mg/day (P) |
|  | <ul style="list-style-type: none"> • Reduces blood cholesterol levels <i>(Single-blind crossover study, from literature)</i> Ingestion of β-sitosterol is expected to reduce the amount of dissolved cholesterol and suppressing cholesterol absorption from gut. • Alleviates urinary disorders caused by benign prostatic hypertrophy <i>(Double-blind comparative study between parallel groups, from literature)</i> It has been confirmed to alleviate BPH and help improve the QOL of men. • Blood triglyceride lowering effect <i>(in vivo)</i> | <p>[Origin of raw material] Rice bran and rice germ</p> <p>[Standard component] Sterol</p> <p>[Safety test] (-P)</p> <ul style="list-style-type: none"> • Single-dose test <p>LD50: 2,000 mg/kg or more</p> |
| -P (powder) (post-ordered production) -L (emulsion) (post-ordered production) | | |


<Protect the body from oxidation by strong anti-oxidative power! Super vitamin E>

| ORYZA TOCOTRIENOL™ | | Recommended dosage |
|---|---|---|
| (Released in September 1998) | | 160 to 380 mg/day (oil) |
| ● Japanese Patent No. 5306626 (A technology of powder preparation which could be used in food material and cosmetic material) (Expiration of validity period) | | |
|  | <ul style="list-style-type: none"> • Cholesterol reducing effect <i>(Multiple human clinical trials, from literature)</i> It has been confirmed to act on liver cells to selectively lower LDL-cholesterol level. • Improves Atherosclerosis <i>(Double-blind comparative study between parallel groups, from literature)</i> It has been confirmed to suppress platelet aggregation or inhibit vasoconstriction. • Anti-cancer <i>(in vivo)</i> • Antioxidative effect <i>(in vivo)</i> • hyaluronic acid production <i>(in vivo)</i> • Suppresses pigmentation <i>(in vivo)</i> • Activation of cells <i>(in vitro)</i> | <p>[Origin of raw material] Rice bran and rice germ</p> <p>[Standard component] Total Tocopherol Total Tocotrienol</p> <p>[Safety test] • Single-dose test</p> <p>LD50: 5,000mg/kg or more</p> |
| - (oil) -90 (oil) -P15CD (powder) -P27CD (powder) -L10 (water-soluble emulsion) | | |





*-Packaging size of Tocotrienol and -90 : 15 kg is also available.

<Improve the circadian rhythm!



A blessing of beautiful flowers required by busy people in modern life >

| PASSIONFLOWER EXTRACT | | Recommended dosage 200 mg/day (P) |
|---|--|---|
| (Released in October 2016) | | |
| ●Japanese Patent No. 6909569 (Skin care material) ●Japanese Patent No. 7007798 (Improving Life Rhythm) | | |
|  | <ul style="list-style-type: none"> • Improves mental QOL and vitality <i>(Double-blind comparative study between parallel groups)</i> It improved mental health in people with irregular lifestyles and people with low motivation to do work or housework. • Increases the expression of clock genes<i>(in vitro, in vivo)</i> • Improves the quality of sleep <i>(in vivo)</i> • Antioxidative effect <i>(in vitro)</i> | <ul style="list-style-type: none"> [Origin of raw material] Aerial part of passion flower [Standard component] Total flavonoids [Safety test] (Passion flower extract) <ul style="list-style-type: none"> • Single-dose test LD50: 2,000 mg/kg or more • Ames test • Micronucleus test Comet assay test • Five times (1,000mg)dose intake test on human |
| -P (powder) -WSP (water-soluble powder) | | |



<Prevent dental cavity and periodontal disease
with the antibacterial power of the perilla seed! >

| PERILLA SEED EXTRACT | | Recommended dosage |
|---|---|---|
| (Released in September 1997) (Anti-allergic) | | 100 to 150 mg/day (P) |
| ●Japanese Patent No. 4231559 (Lipoxygenase inhibiting agent)(Expiration of validity period) ●US Patent No. US 6217875 (Lipoxygenase inhibiting agent)(Expiration of validity period) | | |
|  | Selectively suppresses IgE <i>(Open study)</i> It has been confirmed to reduce allergic reactions by selectively suppressing IgE concentration which is directly involved in type I allergies. No adverse effects to reduce the immune system were observed. • Action to reduce aging odor <i>(Open study)</i> An effect against elders person's smell (aldehyde odor) has been confirmed. | [Origin of raw material] Perilla seed [Standard component] Polyphenols [Safety test] (-P) •Single-dose test LD50: 2,000 mg/kg or more •28 days chronic toxicity test |
| | -P (powder)  -WSP (water-soluble powder)  -L (liquid) -OIL  | •Anti-allergic and anti-inflammatory effects <i>(in vivo)</i> •Inhibits 5-lipoxygenase and suppresses histamine release <i>(in vitro)</i> |



<Relieve allergic symptoms in modern people by the power of perilla seed>

| PERILLA SEED EXTRACT (Oral care) | | Recommended dosage |
|---|---|--|
| (Released in September 1999) | | 80 to 160 mg/day (PO) |
| ●Japanese Patent No. 4112730 (Antibacterial agent for oral cavity)(Expiration of validity period) | | |
|  | •Antibacterial effect against dental cavity and periodontal disease <i>(in vitro)</i> •Antioxidative effect <i>(in vitro)</i> •Anti-inflammatory effect <i>(in vivo)</i> •Deodorant effect against cigarette breath, bad breath, and sweat smell <i>(in vitro)</i> | [Origin of raw material] Perilla seed [Standard component] Polyphenols [Safety test] (-PO) •Single-dose test LD50: 2,000 mg/kg or more |
| | -PO (powder)  -LO (liquid) | |




< Lower LDL (Low-density lipoprotein) cholesterol and high blood pressure ! >

| | | Application for food with function claims accepted in Japan |
|---|--|--|
| <h2>PERILLA SEED OIL</h2> <p>(Released in September 1997)</p> | | Recommended dosage LDL cholesterol : 10 g/day High blood pressure : 5 g/day |
|  | <ul style="list-style-type: none"> • Lower LDL cholesterol (<i>Double-blind comparative study between parallel groups</i>) Improved the level of LDL cholesterol in healthy adult people. • Lower high blood pressure (<i>Double-blind comparative study between parallel groups</i>) Lower the high blood pressure of healthy adult people. | <p>【Origin of raw material】 Seed of <i>Perilla frutescens</i></p> <p>【Standard component】 α-Linolenic acid</p> |
| - Oil  | | |



<An ingredient extracted from wheat for beauty hair, nails, and eyelashes, as well as accelerating hair growth>

| | | Recommended dosage |
|---|---|--|
| <h2>POLYAMINE</h2> <p>(Released in October 2011)</p> | | 70 mg/day (P) |
| • Japanese Patent No. 5877980 (Keratin expression promoter and nail beautifying composition using the same) | | |
|  | <ul style="list-style-type: none"> • Action to improve nail conditions (<i>Open</i>) It has been confirmed to improve the shine and color of nails and to reduce vertical lines on nails. • Promotes nail growth (<i>in vivo</i>) • Promotes fibroblast growth (<i>in vitro</i>) • Promotes collagen production (<i>in vitro</i>) *In addition, the ability to enhance hair growth, pregnancy, and life expectancy (autophagy activation), and protect from radiation. | <p>【Origin of raw material】 Wheat germ</p> <p>【Standard component】 Polyamine</p> <p>【Safety test】 (Wheat germ extract)</p> <ul style="list-style-type: none"> • Single-dose test LD50: 2,000 mg/kg or more • Ames test |
| -P (water-soluble powder)  | | |

<Anti-wrinkle product extracted from fruits of Psoralea corylifolia, edible and drinkable!>

| PSORALEA CORYLIFOLIA FRUIT EXTRACT (PhytoRetinol™) | | Recommended dosage |
|---|--|---|
| (Released in November 2020) | | 35mg/day (oil) |
|  | <ul style="list-style-type: none"> • Improve Wrinkle (open test) Improvement in wrinkle area and depth. • suppress the atrophy of fibroblast induced by UV-A (<i>in vitro</i>) • Contract the Collagen gel and increase protein of integrin 1 (<i>in vitro</i>) • Promote mRNA expression of Fibrin 4 (<i>in vitro</i>) • Promote protein expression of Laminin 5 (<i>in vitro</i>) • Inhibit hyaluronidase (<i>in vitro</i>) | <p>【Origin of raw material】 Fruits of Psoralea corylifolia</p> <p>【Standard component】 Bakuchiol</p> <p>【Safety test】 (PhytoRetinol™)</p> <ul style="list-style-type: none"> • Single-dose test LD50: 2,000 mg/kg or more • Ames test • Phototoxicity test (rats) 500mg / kg • Phototoxicity test (fibroblast) |
| -3 (oil)  -P1 (powder)  | | |

<Protect the eyes and skin! Power of anthocyanins from purple rice>




| PURPLE RICE EXTRACT | | Recommended dosage |
|---|---|--|
| (Released in September 2002) | | 200 to 400 mg/day (P) |
| •Japanese Patent No. 5916203 (ER stress reducer) | | |
|  | <ul style="list-style-type: none"> • Suppresses blood sugar elevation after meals (Double-blind single intake study) It has been confirmed that the blood sugar elevation 30 minutes after meals was significantly suppressed. Prevents eye diseases (<i>in vitro, in vivo</i>) • Inhibit s carbohydrate absorption (<i>in vitro</i>) • Beautifying effect(<i>in vitro</i>) | <p>【Origin of raw material】 Purple rice seed</p> <p>【Standard component】 Polyphenols Anthocyanins</p> <p>【Safety test】 (Purple rice extract)</p> <ul style="list-style-type: none"> • Single-dose test LD50: 5,000 mg/kg or more • 28 days chronic toxicity test • Ames test |
| -P (water-soluble powder)  | | |

*Packaging size of -P : 3 kg




<From a tea country, Kenya! Healthy and beauty promoting tea>

| | | | |
|---|---|---|--|
| PURPLE TEA EXTRACT | | | Recommended dosage 100 mg/day (P) |
| (Released in October 2013) | | | |
| <ul style="list-style-type: none"> •Japanese Patent No. 6933781 (AMPK activator) •Japanese Patent No. 6227851 (Circadian rhythm adjustment agent) <small>(Expiration of duration of patent right)</small> •US Patent No.11478495 (AMPK activator) | | | |
| | <ul style="list-style-type: none"> • Weight controlling and beautifying effects <i>(Open study)</i> It has been confirmed to reduce the thickness of subcutaneous fat in the abdomen and upper arms. It lowered body fat percentage, LDL-cholesterol, and blood glucose of women. As for beautifying effects, an increase in collagen score and moisture content on the cheeks, and a decrease in oil on the forehead were observed. • Suppresses aging of skin <i>(in vitro)</i> • Antioxidative effect <i>(in vitro)</i> • Whitening effect <i>(in vitro)</i> • Suppresses AGEs production <i>(in vitro)</i> • AGEs degradative effect <i>(in vitro)</i> • Activate AMPK in muscle cells <i>(in vitro)</i> <ul style="list-style-type: none"> • Beneficial effect for exercise <i>(Randomized double-blind comparative study between parallel groups)</i> The endurance ability of exercise in muscle of lower body was improved, and the value of lactate dehydrogenase (LDH), which is a general index for measuring muscle damage, was decreased. Meanwhile, it was confirmed that the motivation of exercise was improved. • Promotes NO production in endothelial cell <i>(in vitro)</i> | <ul style="list-style-type: none"> [Origin of raw material] Purple tea leaf [Standard component] Total polyphenols GHG [Safety test] (Purple tea extract) <ul style="list-style-type: none"> • Single-dose test LD50: 2,000 mg/kg or more • Ames test | |
| -P (powder) -WSP (water-soluble powder) | | | |



<To relieve arthritic symptoms and support joints care!
Anti-inflammatory ingredient>

| RED GINGER EXTRACT | | Recommended dosage |
|---|--|---|
| (Released in May 2006) | | 15 to 20 mg/day (P) |
| <ul style="list-style-type: none"> • Japanese Patent No. 5303697 (Anti-inflammatory agent and painkiller) • US patent: 8017162 (Anti-inflammatory agent) | | |
|  | <p>• Action to prevent arthritis (Open study) It has been confirmed to significantly reduce hyaluronic acid which is a blood inflammation parameter.</p> <p>• Suppresses acute and chronic inflammation (in vivo)</p> <p>• Selectively inhibits COX-2 (in vivo)</p> <p>• Suppresses prostaglandin (PG) production (in vitro)</p> <p>• Synergistic action with glucosamine (suppress Nitric Oxide production) (in vitro)</p> | <p>[Origin of raw material] Red ginger rhizome</p> <p>[Standard component] [6]-Gingerol and [6]-shogaol Tannins</p> <p>[Safety test] (Red ginger extract)</p> <ul style="list-style-type: none"> • Single-dose test LD50: 2,000 mg/kg or more • Ames test • 28 days chronic toxicity test |
| <p>-P (powder) </p> <p>-WSP  (water-soluble powder)</p> | | |



<Ancient rice eaten since the Yayoi Period (400 B.C. to A.D. 300)
Use the power of the pigment of red rice to fight against metabolic syndrome! >

| RED RICE EXTRACT | | Recommended dosage |
|---|--|---|
| (Released in November 2007) | | 50 mg/day (P) |
|  | <p>• Improves conditions of metabolic syndrome (Open study) It has been confirmed to lower cholesterol and triglyceride levels in people with hyperlipidemia.</p> <p>• Antioxidative effect (in vitro)</p> <p>• Improves conditions of hypertriglyceridaemia (in vivo)</p> <p>• Improves conditions of hypercholesterolemia (in vivo)</p> <p>• Promotes lipid metabolism (in vitro)</p> | <p>[Origin of raw material] Red rice</p> <p>[Standard component] Polyphenols</p> <p>[Safety test] (Red rice extract)</p> <ul style="list-style-type: none"> • Single-dose test LD50: 1,000mg/kg or more • Ames test (-P) • Intaking test in human 50 mg, 3 weeks |
| <p>-P (powder) </p> <p>-WSP  (water-soluble powder)</p> | | |

<A leading anti-aging ingredient! A polyphenol derived from grapes>

| RESVERATROL | | Recommended dosage |
|---|---|---|
| (Released in September 2007) | | 20 to 40 mg/day (P5) |
|  | <ul style="list-style-type: none"> • Anti-metabolic syndrome effect <i>(Open study)</i> A four-week ingestion of RESVERATROL exhibited decrease in lipid and glucose levels. It also reduced oxidative stress. • Anti-aging effect <i>(in vitro, in vivo)</i> • Anti-oxidative effect <i>(in vitro)</i> • Beautifying effect <i>(in vitro)</i> • Anti-P. acnes effect <i>(in vitro)</i> • Neuroprotective effect <i>(in vivo)</i> | <p>[Origin of raw material] Grape leaf, seed, skin</p> <p>[Standard component] Polyphenols Trans-resveratrol</p> <p>[Safety test] (-P10 *Test on products with a high resveratrol content)</p> <ul style="list-style-type: none"> • Single-dose test LD50: 2,000 mg/kg or more (-P5) • 28 days chronic toxicity test • Micronucleus test |
| -P5 (powder)  -WSP0.5 (water-soluble powder) | | |



< Sleep quality improvement & Motivation maintenance for getting things done >

| SAFFRON EXTRACT  | | Recommended dosage 22 mg/day (P) |
|--|---|---|
| (Released in May 2023) | | |
|  | <ul style="list-style-type: none"> • Sleep quality improvement (<i>Multiple human clinical trials</i>) It has been confirmed to have improving effects on sleep quality, and maintaining effects on motivation for things done. • Anxiolytic effect (<i>Double-blind comparative study between parallel groups</i>) Ingestion of saffron extract reduced anxiety symptoms. • Non REM sleep extension (<i>in vivo</i>) | <ul style="list-style-type: none"> 【Origin of raw material】 saffron stigmas 【Standard component】 Crocin 【Safety test】 (P) • Single-dose test LD50 : 2000 mg/kg or more • Ames test |
| -P (water-soluble powder) | | |

● Japanese Patent No. 5610577 (Sleep improvement agent and sedative and their use*)





*Owned by Daiichi University of Pharmacy

<Excellent anti-glycative action of Japanese National flower “Sakura” (cherry blossom)>





| | | |
|---|--|--|
| SAKURA EXTRACT <i>Florabella</i> (USA) | | Recommended dosage 50 to 150 mg/day (P) |
| (Released in April 2010) | | |
| <ul style="list-style-type: none"> •Japanese Patent No. 5783784 (Nitric oxide production inhibitor) •Japanese Patent Nos. 5878023 and 5792844 (Suppression of AGE production) •US Patent No. US9381223 (Suppression of AGE production) •Chinese Patent No. CN102883733 (Suppression of AGE production) •Malaysia Patent No. MY173496 (Suppression of AGE production) | | |
|  | <ul style="list-style-type: none"> •Anti-glycation (Double-blind comparative study between parallel groups) An eight-week intake of the extract exhibited the following effects. (1) Reduction of AGEs (2) Suppression of the reduction in skin elasticity (3) Reduction of dark spots and red areas (4) Prevention of pore formation (5) Prevention of dry skin caused by decrease in humidity (6) Increase in the smoothness of the skin •Suppresses AGE production (<i>in vitro</i>) •AGEs degradative effect (<i>in vitro</i>) •Produces collagen and forms matrices (<i>in vitro</i>) •Suppress fibroblast apoptosis (<i>in vitro</i>) •Suppress melanin production (<i>in vitro</i>) •Anti-inflammatory action (<i>in vitro</i>) | <ul style="list-style-type: none"> [Origin of raw material] Cherry Blossom flower [Standard component] Caffeoyl glucose Quercetin glucoside [Safety test] (Cherry Blossom flower extract) <ul style="list-style-type: none"> •Single-dose test LD50: 2,000 mg/kg or more •28 days chronic toxicity test •90 days chronic toxicity test •Ames test |
| -P  (water-soluble powder) -SYRUP | | |

* Packaging size of -SYRUP : 20 kg

<Support urinary problems caused by overactive bladder or benign prostatic hyperplasia! >




| SEABERRY EXTRACT | | Recommended dosage |
|---|--|--|
| (Released in May 2015) | | 200~400 mg/day (P) |
| Japanese Patent No.7237204 (5α-reductor inhibitor) | | |
|  | <ul style="list-style-type: none"> • Suppresses overactive bladder <i>(Double-blind comparative study between parallel groups)</i> Improved urinary problems by suppressing the excessive contractions of bladder smooth muscles and relieving urination-related anxiety and urinary urgency. • Suppresses prostatic hypertrophy <i>(Open study)</i> • Suppresses excessive contractions of the bladder <i>(in vitro, in vivo)</i> • 5α-reductase inhibition effect (Synergistic effect with Saw palmetto)<i>(in vivo)</i> • Suppresses BPH <i>(in vivo)</i> • Relieves and reduces irritation by air pollutants and dryness <i>(in vitro)</i> • Anti-oxidative action <i>(in vitro)</i> | <p>[Origin of raw material] Seaberry fruit</p> <p>[Standard component] Ursolic acid</p> <p>[Safety test] (Seaberry extract)</p> <ul style="list-style-type: none"> • Single-dose test LD50: 2,000 mg/kg or more • Ames test • Five times dosage intake test in human (Seaberry fruit oil) • Single-dose test LD50: 2,000 mg/kg or more • Ames test |
| -P (powder)  -WSP  (water-soluble powder) -FRUIT OIL  | | |

< Oral cavity care material which improves dry mouth and bad breath! >



| Sichuan Pepper Oil (SalivaMoist™) SalivaMoist™ (Released in November 2020) | | Recommended dosage 50~100 mg/day (-P5) |
|--|---|---|
|  | <ul style="list-style-type: none"> • Promote saliva secretion (Open test) • Promote saliva secretion (Compared intake of before and after by Saxon test) <p>It was confirmed that the amount of saliva was improved. The related symptoms of oral cavity were improved.</p> | <p>【Origin of raw material】 Sichuan pepper rind</p> <p>【Standard component】 Total hydroxy-sanshools</p> <p>【Safety test】 (Sichuan pepper Oil)</p> <ul style="list-style-type: none"> • Single-dose test LD50: 1,000 mg or more • Ames test |
| | <ul style="list-style-type: none"> -5 (oil)  -P5 (podwer)  -P10 (podwer)  | <ul style="list-style-type: none"> • Activate TRP channel (<i>in vitro</i>) • Anti-bacterial activity against <i>S. mutans</i> and <i>P. gingivalis</i> (<i>in vitro</i>) |

【New Product】



<Smooth blood flow, improvement of cold sensitivity & swelling!
Beauty benefits expected from blood circulation improvement ingredients.>

| STRAWBERRY GUAVA EXTRACT FemBerry™ (FemBerry™) | | Recommended dosage |
|--|--|---|
| (Released in October 2023) | | 100mg/day (P) |
|   -P (water-soluble powder)  | <ul style="list-style-type: none"> <p style="color: red; margin: 0;">• Platelet aggregation inhibition</p> <p>(Placebo-controlled trial)</p> <p>A single intake significantly reduced platelet aggregation rate.</p> <p style="color: red; margin: 0;">• Body temperature recovery promotion</p> <p>(Placebo-controlled trial)</p> <p>A cold water stress test was conducted 30 minutes after ingestion, and it was confirmed that it had an effect on promoting recovery of skin surface temperature.</p> <p style="color: red; margin: 0;">• Blood flow improvement</p> <p>(Placebo-controlled trial)</p> <p>When the finger peripheral blood flow velocity was measured 30 minutes after ingestion, an example of acceleration was observed.</p> <p style="color: red; margin: 0;">• Swelling improvement</p> <p>(Single-blind crossover study)</p> <p>Six hours after ingestion, water retention in the legs tended to improve.</p> <p style="color: red; margin: 0;">• Platelet aggregation inhibition</p> <p><i>(in vitro)</i></p> <p style="color: red; margin: 0;">• Skin barrier function enhancement</p> <p><i>(in vitro)</i></p> <p style="color: red; margin: 0;">• Vascular barrier function enhancement</p> <p><i>(in vitro)</i></p> | <p>【Origin of raw maerial】 Fruits of strawberry guava</p> <p>【Standard component】 Adenosine Glucosylceramide</p> <p>【Safety test】 (P)</p> <ul style="list-style-type: none"> • Single-dose test LD50 : 2,000 mg/kg or more • Ames test |





<Expected to show synergistic effects with ceramide!
 An ingredient to moisturize the epidermis and improve skin barrier function>

| STRAWBERRY SEED EXTRACT | | Recommended dosage |
|---|--|--|
| (Released in May 2008) | | 40 to 80 mg/day (P) |
| <ul style="list-style-type: none"> •Japanese Patent No. 5996156 (Gene expression promoter for skin beautification, moisturizing composition and skin beautifying composition using them) •Japanese Patent No. 6516246 (Gene expression promoter for filaggrin and involucrin) •Japanese Patent No. 6433053 (Lipid accumulation promoter in sebaceous gland cells) •Japanese Patent No. 6635615 (Lipid accumulation promoter in sebaceous gland cells) | | |
|  | <ul style="list-style-type: none"> • Beauty enhancing action (moisturizing, beautifying, and whitening) <i>(Open study)</i> It has been confirmed to improve subjective outcomes related to skin moisture e.g. moist feeling and rough feeling of the skin • Reinforces the skin's barrier function <i>(in vivo)</i> • Moisturizing effect <i>(in vivo)</i> • Increases ceramide content <i>(in vitro)</i> • Increases filaggrin and involucrin content <i>(in vitro)</i> • Anti-obesity effect <i>(in vivo)</i> | <p>[Origin of raw material] Strawberry seed</p> <p>[Standard component] Polyphenols Tiliroside</p> <p>[Safety test] (Strawberry seed extract)</p> <ul style="list-style-type: none"> • Single-dose test LD50: 2,000 mg/kg or more • Ames test |
| -P (powder)  -Seed oil (post-ordered production) | | |


<Focusing on the beautifying action of Saponin that is characteristic to the seeds!
 Make your skin as firm as tomatoes! >

| TOMATO SEED EXTRACT (Released in October 2018) LycōLife™ | | Application for food with function claims accepted in Japan |
|--|--|--|
| | | Recommended dosage <hr/> 200 mg/day (P) |
| <ul style="list-style-type: none"> •Japanese Patent No. 6799114 (ECM cycle normalizing agent) •Japanese Patent No. 7026181(ECM cycle normalizing agent) | | |
|  <p>-P (water-soluble powder) </p> | <ul style="list-style-type: none"> • Maintain skin elasticity, improve glycation stress (<i>Double-blind comparative study between parallel groups</i>) After 8 weeks of intake, it was confirmed that the decrease in skin elasticity was significantly suppressed and the glycation stress was also reduced. • Improves the skin elasticity and increases collagen content (<i>Open test</i>) A four-week intake significantly increased the skin collagen score skin and improved in questionnaire skin conditions. • Promotes collagen production (<i>in vitro</i>) • Promotes elastin production (<i>in vitro</i>) Promotes uptake of collagen and elastin degradation (<i>in vitro</i>) • Increases number of intradermal lysosomes(<i>in vitro</i>) • Anti-allergic effect(<i>in vitro, in vivo</i>) • Dry skin ameliorative effect (<i>in vitro, in vivo</i>) | <p>[Origin of raw material] Tomato seed</p> <p>[Standard component] Total Lycoperside</p> <p>[Safety test] (Tomato seed extract)</p> <ul style="list-style-type: none"> • Single-dose test LD50: 2,000 mg/kg or more • Ames test • Five times (1,000mg)dose intake test on human |

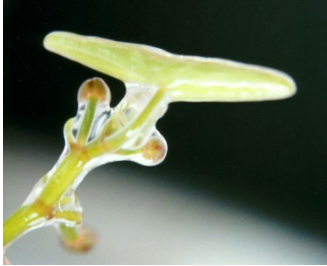


<Suppress fat absorption and fat accumulation, protect liver, No caffeine>

| VINE TEA EXTRACT  | | Recommended dosage |
|--|---|--|
| (Released in November 2021) | | 250mg/day (P) |
|  | <ul style="list-style-type: none"> • Suppresses fat absorption <i>(Double-blind comparative study between parallel groups)</i> <p>It has been confirmed that the visceral fat area and abdominal circumference were decreased after 12 weeks intake. <i>(Single-blind crossover study)</i></p> <p>The increasing of serum triglyceride was significantly suppressed after 2 hours intake under high-fat diet, and the AUC of triglyceride was also significantly reduced.</p> | <p>【Origin of raw material】 Leaves of Vine tea</p> <p>【Standard component】 Ampelopsin</p> <p>【Safety test】 (powder)</p> <ul style="list-style-type: none"> • Singer-dose test LD50 : 2000 mg/kg or more • Ames test |
|  | <ul style="list-style-type: none"> • Suppresses fat absorption <i>(in vivo)</i> • Suppresses fat accumulation <i>(in vitro, in vivo)</i> • Promotes fat metabolism <i>(in vitro)</i> • Inhibits activity of pancreatic lipase <i>(in vitro)</i> • Protects liver (non-alcohol and alcohol induced fatty liver) <i>(in vitro, in vivo)</i> | |
| -P (powder)  | | |



<Protect liver and prevent metabolic syndrome!
Hydrolyzable polyphenols with an anti-oxidative effect>

| WALNUT POLYPHENOL | | Recommended dosage |
|---|---|---|
| (Released in September 2006) | | 50 to 150 mg/day (P10, WSP10) |
|  | <p>• Prevention of metabolic syndrome <i>(Multiple human clinical trials, from literature)</i> As the intake of walnut has been confirmed to be effective for improving blood cholesterol levels and preventing arteriosclerosis, walnut seed oil, which contains a large amount of unsaturated fatty acids, is expected to have a similar effect.</p> <p>• Liver-protective effect <i>(in vitro, in vivo)</i></p> <p>• Improves lipid metabolism <i>(in vitro, in vivo)</i></p> <p>• Anti-diabetic effect <i>(in vitro, in vivo)</i></p> <p>• Suppresses melanin production <i>(in vitro)</i></p> | <p>[Origin of raw material] Walnut seed skin</p> <p>[Standard component] Tellimagrandin I Polyphenols</p> <p>[Safety test] (Walnut extract)</p> <ul style="list-style-type: none"> • Single-dose test LD50: 2,000 mg/kg or more • Intake test on human (-P10) 50 mg, 4 weeks |
| <p>-P10 (powder) -WSP10 (water-soluble powder) -OIL</p> | | |




<Watershield, a speciality of Akita Prefecture in Japan, is tasty and skin applicable!
Prevent and reduce cellulite! >

| WATERSHIELD EXTRACT | | Recommended dosage |
|---|---|---|
| (Released in September 2012) | | 150 mg/day (P) |
| <ul style="list-style-type: none"> •Japanese Patent No. 6075025 (New compound and its use) •Japanese Patent No. 6198463 (Composition for anti-aging of skin) | | |
|  | <ul style="list-style-type: none"> •Reduces fats <i>(Open study)</i> A three-week intake of the extract reduced the thickness of abdominal subcutaneous fat (males). •Reduces body fats and cellulite <i>(Open study)</i> A three-week intake reduced body fat percentage, visceral fat index, and hip size. It has been also confirmed to reduce cellulite and improved collagen score (females). •Suppresses fat accumulation <i>(in vitro, in vivo)</i> •Suppresses fibroblast damage and promotes collagen production <i>(in vitro)</i> •Stimulates production of adiponectin and hyaluronic acid <i>(in vitro)</i> | <p>[Origin of raw material] Watershield leaf</p> <p>[Standard component] Total polyphenols Junsainoside A Polysaccharides</p> <p>[Safety test] (Watershield extract)</p> <ul style="list-style-type: none"> • Single-dose test LD50: 2,000 mg/kg or more (-WSP) • Ames test |
| -P (powder)  -WSP  (water-soluble powder) | | |

<A beautifying and weight control ingredient which is loved by Yang Guigei >

| WHITE JELLY FUNGUS EXTRACT (Released in October 2007) | | Recommended dosage 50 to 200 mg/day (P) |
|--|---|--|
| •Japanese Patent No. 5525700 (liquid composition as well as beverages and cosmetics using it) | | |
|  <p>-P (water-soluble powder) </p> | <ul style="list-style-type: none"> • Suppresses hyperlipidemia <i>(Open study)</i> Exhibited a tendency to reduce LDL cholesterol, triglyceride, as well as free fatty acids and to increase HDL cholesterol. A tendency to improve hyperlipidemia has been confirmed. • Action to activate enzymes that metabolize sugars <i>(in vitro)</i> • Interferes with fat accumulation <i>(in vivo)</i> • Interferes with fat absorption <i>(in vivo)</i> • Lowers triglyceride and cholesterol levels <i>(in vivo)</i> • Promotes bile acid secretion <i>(in vivo)</i> • Promotes the growth of <i>Lactobacillus</i> and <i>Bifidobacterium</i> <i>(in vitro)</i> | <p>[Origin of raw material] Fruiting body of white jelly fungus</p> <p>[Standard component] Glucuronic acid White jelly fungus polysaccharides</p> <p>[Safety test] (-P)</p> <ul style="list-style-type: none"> • Single-dose test LD50: 1,000 mg/kg or more • 30 days chronic toxicity test • Ames test • Subacute toxicity test • Teratogenicity test • Intake test in human 50 mg, 3 weeks |

<Beautifying and relaxing effects of Yuzu seed with a high limonin content>

| YUZU SEED EXTRACT | | Recommended dosage |
|---|---|--|
| (Released in April 2005) | | 200 to 300 mg/day (P) |
| •Japanese Patent No. 5014569 (Composition for skin improvement) | | |
|  <p>-P (powder) </p> <p>-WSP  (water-soluble powder)</p> <p>-OIL</p> | <p>• Beautifying effects (<i>Open study</i>) A four-week ingestion resulted in increase in skin moisture in and improved skin texture <i>via</i> the promotion of skin turnover and expression of the hyaluronic acid synthesizing enzyme.</p> <p>• Anti-stress effect (<i>Open study</i>) A single dose ingestion exhibited a relaxing effect <i>via</i> the enhancement of electroencephalogram(alpha waves) and improvement of blood flow.</p> <p>• Improves blood circulation (<i>Open test</i>)</p> <p>• Whitening effect (<i>in vitro</i>)</p> <p>• Increases fibroblast proliferation (<i>in vitro</i>)</p> <p>• Promotes skin turnover (<i>in vitro</i>)</p> <p>• Suppresses expression of enzymes which decompose skin components (<i>in vitro</i>)</p> <p>• Anti-metabolic syndrome effect (<i>in vivo</i>)</p> | <p>[Origin of raw material] Yuzu seed</p> <p>[Standard component] Limonin</p> <p>[Safety test] (Yuzu seed extract)</p> <ul style="list-style-type: none"> • Single-dose test LD50: 5,000 mg/kg or more • Ames test • 28 days chronic toxicity test |

APPENDIX 1. List of Recommended Dosage

| Products | Grade | Recommended Dosage/day | | |
|-------------------------|----------------------------|--|-----------------------------|-------------|
| A | AGUAJE EXTRACT | - (Oil) | 100mg | |
| | | -P (Powder) | 330mg | |
| | | -L (Emulsion) | 330mg | |
| | ALPHA LIPOIC ACID | -P (Powder) | 50~100mg | |
| | | -P80 (Powder) | 60~120mg | |
| | | -WSP7(Water-Soluble Powder) | 700~1,400mg | |
| | | -L1 (Emulsion) | 500~1,000mg | |
| | ASTAXANTHIN | - 5 (Oil) | 80~120mg | |
| | | -20 (Oil) | 20~30mg | |
| | | -P1 (Powder) | 400~600mg | |
| | | -LS1 (Emulsion) | 400~600mg | |
| | B | BIRD'S NEST EXTRACT | -P (Water-Soluble Powder) | 70mg |
| BLACK GINGER EXTRACT | | -P (Powder) | 50~150mg | |
| | | ※In the case of foods with function claims : P Recommended Dosage: 100mg/day | -WSP (Water-Soluble Powder) | 500~1,500mg |
| BROCCOLI SPROUT EXTRACT | | -EXTRACT (Water-Soluble Powder) | 90~180mg | |
| | | ※In the case of foods with function claims : EX Recommended Dosage: 185mg/day | -PS1 (Water-Soluble Powder) | 180~360mg |
| | | -EX (Water-Soluble Powder) | 35~70mg | |
| | | -BROCCOLI SPROUT POWDER | 150~300mg | |
| | | -BROCCOLI POWDER | 4.5~9g | |
| BUCKWHEAT LEAF EXTRACT | | -P (Powder) | 240~600mg | |
| | | -WSP (Water-Soluble Powder) | 12~30g | |
| C | COCOA EXTRACT | -P (Powder) | 100~250mg | |
| | | -WSP (Water-Soluble Powder) | 400~1,000mg | |
| | CHINESE CHIVE SEED EXTRACT | -P (Powder) | 100mg | |
| | | -WSP (Water-Soluble Powder) | 100mg | |
| | CISTANCHE TUBULOSA EXTRACT | - P25 (Water-Soluble Powder) | 100~400mg | |
| | CITRUS UNSHIU EXTRACT | -P (Powder) | 200~500mg | |
| | | -L (Emulsion) | 600~1,500mg | |
| | COFFEE BEAN EXTRACT | -P (Water-Soluble Powder) | 100~200mg | |
| | | ※In the case of foods with function claims : WSP Recommended Dosage: 300mg or 450mg/day | -WSP (Water-Soluble Powder) | 100~200mg |
| | COPRINO™ EXTRACT | - POWDER | 20~60mg | |
| | | - EXTRACT P0.5 (Water-Soluble Powder) | 10~30mg | |

| Products | | Grade | Recommended Dosage/day |
|-------------------------------|--|---|---|
| E | EVENING PRIMROSE EXTRACT | -P (Powder) | 100~300mg |
| | | -WSPS(Water-Soluble Powder) | 100~300mg |
| | EVENING PRIMROSE EXTRACT (Anti-H.pylori) | - PH (Powder) | 90~120mg |
| | | -WSPH (Water-Soluble Powder) | 180~240mg |
| F | FERMENTED RICE GERM EXTRACT | -P (Powder) | 200~500mg |
| | | -WSP (Water-Soluble Powder) | 1.4~3.5g |
| | FUCOXANTHIN ※In the case of foods with function claims : 5KW (oil) Recommended Dosage: 60mg/day | -5KW (Oil) | 10~60mg |
| | | -1KW (Oil) | 50~300mg |
| | | -P1KW (Powder) | 50~300mg |
| | | -WSP0.1KW (Water-Soluble Powder) | 500~3,000mg |
| | FucoRex™ ※In the case of foods with function claims : 3 (oil) Recommended Dosage: 100mg/day | -3 (Oil) | 100mg |
| -1 (Oil) | | 300mg | |
| G | GAMMA ORYZANOL | - (Powder, Food Additive) | Menopause : 10~600mg |
| | | | Dysautonomia : 130~140mg |
| | | | Hyperlipidemia / cholesterol : 50~800mg |
| J | JAPANESE BUTTERBUR EXTRACT | -P (Powder) | 250mg |
| | | -WSP (Water-Soluble Powder) | 250mg |
| K | KIKU FLOWER EXTRACT ※In the case of foods with function claims : P Recommended Dosage: 100mg or 200mg/day | -P (Powder) | 100mg |
| | | -WSP (Water-Soluble Powder) | 10g |
| | KIWI SEED EXTRACT | -P (Powder) | 50~100mg |
| | | -WSP (Water-Soluble Powder) | 50~100mg |
| | KRILL OIL(ISADA OIL) | - (Oil) | 210mg |
| | KUZU LACTIC ACID BACTERIA(ImmnoRise Lactic Acid Bacteria™/SkinBarrier Lactic Acid Bacteria™) | -P (Powder) | 50mg |
| L | LINGONBERRY EXTRACT | -J (Concentrated Fruit Juice) | 1~2g |
| | | -PJ (Water-Soluble Powder) | 5~10g |
| | | -P0.5 (Water-Soluble Powder) | 50~100mg |
| | LITCHI SEED EXTRACT | -P (Powder) | 150~300mg |
| | | -WSP (Water-Soluble Powder) | 150~300mg |
| | LUTEIN ※In the case of foods with function claims : P80 Recommended Dosage: 50mg/day 20F Recommended Dosage: 50mg or 100mg/day | -P80- (Powder) | 15~20mg |
| | | -P40- (Powder) | 30~40mg |
| | | -L8 (Water-Soluble Emulsion) * post-ordered production | 150~200 mg |
| | | -20F (Oil) | 60~100 mg |
| | M | MAQUI BERRY EXTRACT ※In the case of foods with function claims : P35 Recommended Dosage: 40mg/day | -P35 (Water-Soluble Powder) |
| -J (Concentrated Fruit Juice) | | | 0.6~1.3g |

| Products | | Grade | Recommended Dosage/day | | |
|--------------------|---|-------------------------------|---------------------------------|-----------------------------|--|
| M | MOUNTAIN CAVIAR EXTRACT | -P (Water-Soluble Powder) | 200~400mg | | |
| O | OCTACOSANOL | -P1 (Powder) | 400~1,000mg | | |
| | | -P8 (Powder) | 50~125mg | | |
| | | -P10 (Powder) | 40~100mg | | |
| | | -P12 (Powder) | 34~84mg | | |
| | | -P30 (Powder) | 14~34mg | | |
| | | -P45 (Powder) | 9~22mg | | |
| | | -P60 (Powder) | 7~17 mg | | |
| | | -L0.5 (Emulsion) | 800~2,000mg | | |
| | ORYZA CERAMIDE™ ※In the case of foods with function claims : PCD, WSP, PT Recommended Dosage: 40mg/day | -PT (Powder) | Whitening : 30~50mg | Moisturizing : 20~40mg | |
| | | -PCD (Powder) | | | |
| | | -WSP (Water-Soluble Powder) | | | |
| | | -L (Emulsion) | Whitening : 300~500mg | Moisturizing : 200~400mg | |
| | | -L0.8 (Emulsion) | Whitening : 113~188mg | Moisturizing : 75~150mg | |
| | ORYZA GABA™ ※In the case of foods with function claims : HC90 Recommended Dosage: 13.7mg or 31mg or 111mg/day F95R Recommended Dosage: 12.9mg or 30mg or 106mg/day | -HC5 (Water-Soluble Powder) | 120~400mg | | |
| | | -HC90 (Water-Soluble Powder) | 6.7~22mg | | |
| | | -C (Water-Soluble Emulsion) | 1.2~4g | | |
| | | -Germ-P (germ powder) | 2.4~8g | | |
| | ORYZA PEPTIDE | - P60 (Water-Soluble Powder) | 500~1,000mg | Beauty : 100~200mg | |
| | ORYZA PROTEIN™ | - P70 (Powder) | 500~1,000mg | | |
| | | - P80 (Powder) | 440~880mg | | |
| | ORYZA POLYAMINE™ | - P (Water-Soluble Powder) | 50~100mg | | |
| ORYZA STEROL | -P (Powder) * post-ordered production | 500mg | | | |
| | -L (Emulsion) * post-ordered production | 15g | | | |
| ORYZA TOCOTRIENOL™ | - (Oil) | 160~380mg | | | |
| | - 90 (Oil) | 42~100mg | | | |
| | - P15CD (Powder) | 320~750mg | | | |
| | - P27CD (Powder) | 140~330mg | | | |
| | - L10 (Emulsion) | 360~860mg | | | |
| P | PASSIONFLOWER EXTRACT | -P (Powder) | 200mg | | |
| | | -WSP (Water-Soluble Powder) | 600mg | | |
| | PERILLA SEED EXTRACT (Anti-allergic) ※In the case of foods with function claims : Oil Recommended Dosage: 5g or 10g/day | -P (Powder) | 100~150mg | | |
| | | -WSP (Water-Soluble Powder) | 100~150mg | | |
| | | -L (Emulsion) | 150~225mg | | |
| -Oil | | lowering blood pressure 5g | Lowering LDL cholesterol 10g | | |

| Products | | Grade | Recommended Dosage/day |
|--|---|--------------------------------|------------------------|
| P | PERILLA SEED EXTRACT (Anti-dental caries) | -PO (Powder) | 80~160mg |
| | | -LO (Liquid) | 120~240mg |
| | POLYAMINE | -P (Water-Soluble Powder) | 70mg |
| | PSORALEA CORYLIFOLIA FRUIT EXTRACT | -3 (Oil) | 35mg |
| | | -P1 (Powder) | 100mg |
| | PURPLE RICE EXTRACT | -P (Water-Soluble Powder) | 200~400mg |
| | PURPLE TEA EXTRACT | -P (Powder) | 100mg |
| -WSP (Water-Soluble Powder) | | 150mg | |
| R | RED GINGER EXTRACT | -P (Powder) | 15~20mg |
| | | -WSP (Water-Soluble Powder) | 30~40mg |
| | RED RICE EXTRACT | -P (Powder) | 50mg |
| | | -WSP (Water-Soluble Powder) | 250mg |
| | RESVERATROL | -P5 (Powder) | 20~40mg |
| | | -WSP0.5 (Water-Soluble Powder) | 200~400 mg |
| S | SAFFRON EXTRACT(Safleep™) | -P (Water-Soluble Powder) | 22mg |
| | SAKURA EXTRACT | -P (Water-Soluble Powder) | 50~150mg |
| | SEABERRY EXTRACT | -P (Powder) | 200~400mg |
| | | -WSP (Water-Soluble Powder) | 400mg |
| | | - FRUIT OIL | 150~450mg |
| | SICHUAN PEPPER OIL | - (Oil) | 50 mg/intake |
| | | -P5 (Powder) | 50~100 mg/intake |
| | | -P10 (Powder) | 25~50 mg/intake |
| STRAWBERRY GUAVA EXTRACT(FemBerry™) | -P(Water-Soluble Powder) | 100mg | |
| STRAWBERRY SEED EXTRACT | -P (Powder) | 40~80mg | |
| T | TOMATO SEED EXTRACT (Lycolift™) ※In the case of foods with function claims : P Recommended Dosage: 200mg/day | -P(Water-Soluble Powder) | 200mg |
| V | VINE TEA EXTRACT(ResoVine™) | -P (Powder) | 250mg |
| W | WALNUT POLYPHENOL | - P10 (Powder) | 50~150mg |
| | | - WSP10(Water-Soluble Powder) | 50~150mg |
| | WATERSHIELD EXTRACT | -P (Powder) | 150mg |
| | | -WSP (Water-Soluble Powder) | 150mg |
| WHITE JELLY FUNGUS EXTRACT | -P (Water-Soluble Powder) | 50~200mg | |
| Y | YUZU SEED EXTRACT | -P (Powder) | 200~300mg |
| | | -WSP (Water-Soluble Powder) | 800~1,200mg |

APPENDIX 2. List of Specification

| Products | Grade | Standard Component | |
|-------------------------|----------------------------|---------------------------------|--|
| A | AGUAJE EXTRACT | - (Oil) | DMM*20 μ g/g (*Dihydroxy-Methoxy-Methylflavan) |
| | | -P (Powder) | DMM*5 μ g/g |
| | | -L (Emulsion) | DMM*5 μ g/g |
| | ALPHA LIPOIC ACID | -P (Powder) | α -Lipoic Acid 98.0 % |
| | | -P80 (Powder) | α -Lipoic Acid 80.0 % |
| | | -WSP7(Water-Soluble Powder) | α -Lipoic Acid 7.0 % |
| | | -L1 (Emulsion) | α -Lipoic Acid 10.0 % |
| | ASTAXANTHIN | - 5 (Oil) | Astaxanthin (Free) 5.0 % |
| | | -20 (Oil) | Astaxanthin (Free) 20.0 % |
| | | -P1 (Powder) | Astaxanthin (Free) 1.0 % |
| | | -LS1 (Emulsion) | Astaxanthin (Free) 1.0 % |
| | B | BIRD'S NEST EXTRACT | -P (Water-Soluble Powder) |
| BLACK GINGER EXTRACT | | -P (Powder) | Total Polymethoxyflavone 10.0 % 5,7-Dimethoxyflavone 2.5 % |
| | | -WSP (Water-Soluble Powder) | Total Polymethoxyflavone 1.00 % 5,7-Dimethoxyflavone 0.25 % |
| BROCCOLI SPROUT EXTRACT | | -EXTRACT (Water-Soluble Powder) | Glucoraphanin 5.0 % Sulforaphane 2.0 % |
| | | -PS1 (Water-Soluble Powder) | Glucoraphanin 2.5 % Sulforaphane 1.0 % |
| | | -EX (Water-Soluble Powder) | Sulforaphane glucosinolate 13.0 % |
| | | -BROCCOLI SPROUT POWDER | Glucoraphanin 3.0 % Sulforaphane 1.2 % |
| | | -BROCCOLI POWDER | Glucoraphanin 500 ppm Sulforaphane 200 ppm |
| BUCKWHEAT LEAF EXTRACT | | -P (Powder) | Rutin 5.0 % |
| | | -WSP (Water-Soluble Powder) | Rutin 0.1 % |
| C | COCOA EXTRACT | -P (Powder) | Theobromine 10.0 % Polyphenols 20.0 % |
| | | -WSP (Water-Soluble Powder) | Theobromine 0.1 % Polyphenols 0.2 % |
| | CHINESE CHIVE SEED EXTRACT | -P (Powder) | S-allyl-L-cysteine Min. 0.1 % |
| | | -WSP (Water-Soluble Powder) | S-allyl-L-cysteine Min. 0.1 % |
| | CISTANCHE TUBULOSA EXTRACT | - P25 (Water-Soluble Powder) | Echinacoside 25.0 % Acteoside 9.0 % Phenylethanoid glycosides 50.0 % |

| Products | | Grade | Recommended Dosage/day | |
|---------------------------------------|---|----------------------------------|--|---------------------------|
| C | CITRUS UNSHIU EXTRACT | -P (Powder) | β -cryptoxanthin 1000 μ g/100g Hesperidin 0.3 % | |
| | | -L (Emulsion) | β -cryptoxanthin 330 μ g/100g Hesperidin 0.10 % | |
| | COFFEE BEAN EXTRACT | -P (Water-Soluble Powder) | Chlorogenic acid 24.0 % Chlorogenic acids 45.0 % | |
| | | -WSP (Water-Soluble Powder) | Chlorogenic acids (9 peaks) 40.0 % | |
| | COPRINO™ EXTRACT | - POWDER | Ergothioneine 0.3 % | |
| - EXTRACT P0.5 (Water-Soluble Powder) | | Ergothioneine 0.5 % | | |
| E | EVENING PRIMROSE EXTRACT | -P (Powder) | Polyphenols 60.0 % | |
| | | -WSPS(Water-Soluble Powder) | Polyphenols 50.0 % | |
| | EVENING PRIMROSE EXTRACT (Anti-H.pylori) | - PH (Powder) | Polyphenols 18.0 % | |
| | | -WSPH (Water-Soluble Powder) | Polyphenols 15.0 % | |
| F | FERMENTED RICE GERM EXTRACT | -P (Powder) | polyphenols 3.0 % | |
| | | -WSP (Water-Soluble Powder) | polyphenols 0.4 % | |
| | FUCOXANTHIN | -5KW (Oil) | Fucoxanthin 5.0 % | |
| | | -1KW (Oil) | Fucoxanthin 1.0 % | |
| | | -P1KW (Powder) | Fucoxanthin 1.0 % | |
| | | -WSP0.1KW (Water-Soluble Powder) | Fucoxanthin 0.1 % | |
| | FucoRex™ | -3 (Oil) | Fucoxanthin 3.0 % | |
| | | -1 (Oil) | Fucoxanthin 1.0 % | |
| | G | GAMMA ORYZANOL | -(Powder) | γ -Oryzanol 98.0 % |
| | J | JAPANESE BUTTERBUR EXTRACT | -P (Powder) | Total polyphenols 1.0 % |
| -WSP (Water-Soluble Powder) | | | Total polyphenols 1.0 % | |
| K | KIKU FLOWER EXTRACT | -P (Powder) | Luteolin 10 % | |
| | | -WSP (Water-Soluble Powder) | Luteolin 0.1 % | |
| | KIWI SEED EXTRACT | -P (Powder) | Polyphenols 2.0 % Quercitrin 5.0 mg/100 g | |
| | | -WSP (Water-Soluble Powder) | Polyphenols 2.0 % Quercitrin 5.0 mg/100 g | |
| | KRILL OIL(ISADA OIL) | -(Oil) | 8-HEPE 0.10 % | |
| | KUZU LACTIC ACID BACTERIA(ImmnoRise Lactic Acid Bacteria™/SkinBarrier Lactic Acid Bacteria™) | -P (Powder) | Viable cell count 2×10^{12} cfu/g | |
| L | LINGONBERRY EXTRACT | -J (Concentrated Fruit Juice) | - | |
| | | -PJ (Water-Soluble Powder) | - | |
| | | -P0.5 (Water-Soluble Powder) | Arbutin 0.50 % | |


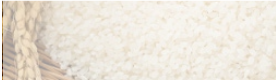

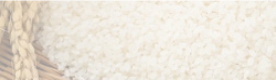

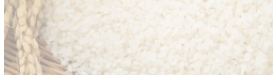
| Products | | Grade | Recommended Dosage/day |
|------------------------------|-------------------------|---|--|
| L | LITCHI SEED EXTRACT | -P (Powder) | Polyphenols 12.0 % |
| | | -WSP (Water-Soluble Powder) | Polyphenols 12.0 % |
| | LUTEIN | -P80 (Powder) | Lutein (free) 40.0 % lutein ester 80.0 % |
| | | -P40 (Powder) | Lutein (free) 20.0 % lutein ester 40.0 % |
| | | -L8 (Water-Soluble Emulsion) * post-ordered production | Lutein (free) 4.0 % lutein ester 8.0 % |
| | | -20FA (Oil) | Lutein (free) 20.0 % Zeaxanthin (free) 4.0 % |
| M | MAQUI BERRY EXTRACT | -P35 (Water-Soluble Powder) | Total anthocyanins 35.0% Total delphinidins 25.0% |
| | | -J (Concentrated Fruit Juice) | - |
| | MOUNTAIN CAVIAR EXTRACT | -P (Water-Soluble Powder) | Momordin Ic 2.0 % |
| O | OCTACOSANOL | -P1 (Powder) | Octacosanol 1 .0% |
| | | -P8 (Powder) | Octacosanol 8 .0% |
| | | -P10 (Powder) | Octacosanol 10 .0% |
| | | -P12 (Powder) | Octacosanol 12.0% |
| | | -P30 (Powder) | Octacosanol 30 .0% |
| | | -P45 (Powder) | Octacosanol 45 .0% |
| | | -P60 (Powder) | Octacosanol 60.0% |
| | | -L0.5 (Emulsion) | Octacosanol 0.5% |
| | ORYZA CERAMIDE™ | -PT (Powder) | Ceramide (Glycosphingolipids) 3.0 % |
| | | -PCD (Powder) | Ceramide (Glycosphingolipids) 3.0 % |
| | | -WSP (Water-Soluble Powder) | Ceramide (Glycosphingolipids) 3.0 % |
| | | -L (Emulsion) | Ceramide (Glycosphingolipids) 0.3% |
| | | -L0.8 (Emulsion) | Ceramide (Glycosphingolipids) 0.8 % |
| | ORYZA GABA™ | -HC5 (Water-Soluble Powder) | γ -aminobutyric acid 5.0% |
| | | -HC90 (Water-Soluble Powder) | γ -aminobutyric acid 90.0% |
| -F95R (Water-Soluble Powder) | | γ -aminobutyric acid 95% | |
| -C (Water-Soluble Emulsion) | | γ -aminobutyric acid 500 mg/100 g | |
| Germ-P (germ powder) | | γ -aminobutyric acid 250 mg/ 100 g | |



| | Products | Grade | Recommended Dosage/day | |
|--|---|--|--|---|
| O | ORYZA PEPTIDE | - P60 (Water-Soluble Powder) | Peptide 60.0 % | |
| | ORYZA PROTEIN™ | - P70 (Powder) | Protein 70.0 % | |
| | | - P80 (Powder) | Protein 80.0 % | |
| | ORYZA POLYAMINE™ | - P (Water-Soluble Powder) | Polyamine 0.2% | |
| | ORYZA STEROL | -P (Powder) * post-ordered production | Sterol 90.0 % | |
| | | -L (Emulsion) * post-ordered production | Sterol 3.0 % | |
| | ORYZA TOCOTRIENOL™ | - (Oil) | Total tocopherols and tocotrienols Total tocotrienols 30.0 % Total tocotrienols 16.0 % | |
| | | - 90 (Oil) | Total tocopherols and tocotrienols Total tocotrienols 90.0 % Total tocotrienols 60.0 % | |
| | | - P15CD (Powder) | Total tocopherols and tocotrienols Total tocotrienols 15.0 % Total tocotrienols 8.0 % | |
| | | - P27CD (Powder) | Total tocopherols and tocotrienols Total tocotrienols 27.0 % Total tocotrienols 18.0 % | |
| | | - L10 (Emulsion) | Total tocopherols and tocotrienols Total tocotrienols 10.0 % Total tocotrienols 7.0 % | |
| | | P | PASSIONFLOWER EXTRACT | -P (Powder) |
| | -WSP (Water-Soluble Powder) | | | Total flavonoids 1.0 % |
| | PERILLA SEED EXTRACT (Anti-allergic) | | -P (Powder) | Polyphenols 3.0 % Certification Test Flavonoid |
| | | | -WSP (Water-Soluble Powder) | Polyphenols 3.0 % Certification Test Flavonoid |
| -L (Emulsion) | | | Polyphenols 2.0 % Certification Test Flavonoid | |
| -Oil | | | Alpha Linolenic Acid 55.0 % | |
| PERILLA SEED EXTRACT (Anti-dental caries) | -PO (Powder) | | Polyphenols 3.0 % Certification Test Flavonoid | |
| | -LOGC (Liquid) | | Polyphenols 2.0 % Certification Test Flavonoid | |
| POLYAMINE | -P (Water-Soluble Powder) | | Polyamine 0.15 % | |
| PSORALEA CORYLIFOLIA FRUIT EXTRACT | -3 (Oil) | | Bakuchiol 3.0 % | |
| | -P1 (Powder) | Bakuchiol 1.0 % | | |


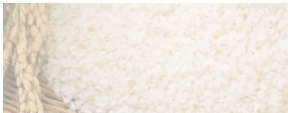
| Products | | Grade | Recommended Dosage/day |
|-------------------------|-------------------------------------|---------------------------------------|---|
| P | PURPLE RICE EXTRACT | -P (Water-Soluble Powder) | Polyphenols 15.0 % Anthocyanins 5.0 % |
| | PURPLE TEA EXTRACT | -P (Powder) | Polyphenols 30.0 % GHG* 3.0 % <small>(*1,2-di-O-galloyl-4,6-O-(S)-hexahydroxydiphenoyl-β-D-glucose)</small> |
| | | -WSP (Water-Soluble Powder) | Polyphenols 10.0 % GHG* 2.0 % |
| R | RED GINGER EXTRACT | -P (Powder) | [6]-gingerol and [6]-shogaol 6.0 % Tannin 1.5 % Certification Test 3R,5S-[6]-gingerdiol |
| | | -WSP (Water-Soluble Powder) | [6]-gingerol and [6]-shogaol 3.0 % Tannin 0.5 % Certification Test 3R,5S-[6]-gingerdiol |
| | RED RICE EXTRACT | -P (Powder) | Polyphenols 5 % Certification Test Proanthocyanins |
| | | -WSP (Water-Soluble Powder) | Polyphenols 1 % Certification Test Proanthocyanins |
| | RESVERATROL | -P5 (Powder) | Polyphenols 25.0 % trans-Resveratrol 5.0 % |
| | | -WSP0.5 (Water-Soluble Powder) | Polyphenols 2.5 % trans-Resveratrol 0.5 % |
| S | SAFFRON EXTRACT(Safleep™) | -P (Water-Soluble Powder) | Crocin 3.0 % |
| | SAKURA EXTRACT | -P (Water-Soluble Powder) | Caffeoyl Glucose 2.0 Quercetin Glucoside 0.05 % |
| | SEABERRY EXTRACT | -P (Powder) | Ursolic acid 0.1 % |
| | | -WSP (Water-Soluble Powder) | Isorhamnetin rhamnoside 0.1 % |
| | | - FRUIT OIL | Palmitoleic Acid (ω-7) 30.0 % Certification Test Carotenoids |
| | SICHUAN PEPPER OIL | -5 (Oil) | Hydroxy sanshools 0.1 % |
| | | -P5 (Powder) | Hydroxy sanshools 0.1 % |
| | | -P10 (Powder) | Hydroxy sanshools 0.2 % |
| | STRAWBERRY GUAVA EXTRACT(FemBerry™) | -P(Water-Soluble Powder) | Adenosine 5 μg/g Glucosylceramide 50 μg/g |
| STRAWBERRY SEED EXTRACT | -P (Powder) | Tiliroside 0.5 % Polyphenols 2.0 % | |
| T | TOMATO SEED EXTRACT (Lycolift™) | -P(Water-Soluble Powder) | Total lycopersides 0.5 % |



| Products | | Grade | Recommended Dosage/day |
|----------|-----------------------------|-------------------------------|---|
| V | VINE TEA EXTRACT(ResoVine™) | -P (Powder) | Ampelopsin (Dihydromyricetin) 50.0 % |
| W | WALNUT POLYPHENOL | - P10 (Powder) | Polyphenols 10.0 % Tellimagrandin I 0.1 % |
| | | - WSP10(Water-Soluble Powder) | Polyphenols 10.0 % Certification Test Tellimagrandin I |
| | WATERSHIELD EXTRACT | -P (Powder) | Polyphenols 5.0 % Junsainoside A 0.01 % Polysaccharides 2.5 % |
| | | -WSP (Water-Soluble Powder) | Polyphenols 5.0 % Junsainoside A 0.01 % Polysaccharides 2.5 % |
| | WHITE JELLY FUNGUS EXTRACT | -P (Water-Soluble Powder) | Total Saccharides 80.0 % Glucuronic Acid 10.0 - 30.0 % |
| Y | YUZU SEED EXTRACT | -P (Powder) | Limonin 0.5 % |
| | | -WSP (Water-Soluble Powder) | Certification Test Limonin |

List of Foods with Function Claims in Japan for Which Application Has been Accepted

| | | |
|---|---|--|
|  <p>Skin Moisturization</p>  | Product Name | ORYZA CERAMIDE™ |
| | Ingredient Involved with the Functionality/Daily Intake | Rice-derived glucosyl ceramide /1.2mg |
| | Daily Intake (Product) | -PCD、-WSP、PT/40mg |
| | Applied Indication (Example) | It has been reported that rice-derived glucosyl ceramide prevents moisture evaporation from the skin surface and helps the skin to stay moist. |
| | Scientific Basis of Functionality | SR |
|  <p>Lower Blood Pressure</p>  | Product Name | ORYZA GABA™ EXTRACT |
| | Ingredient Involved with the Functionality/Daily Intake | GABA (Gamma-aminobutyric acid)/12.3mg |
| | Daily Intake (Product) | -HC90/13.7mg、-F95R/12.5mg |
| | Applied Indication (Example) | It has been reported that GABA has a function to lower blood pressure of people with high blood pressure. |
| | Scientific Basis of Functionality | SR |
|  <p>Quality of Sleep</p>  | Product Name | ORYZA GABA™ EXTRACT |
| | Ingredient Involved with the Functionality/Daily Intake | GABA (Gamma-aminobutyric acid)/100mg |
| | Daily Intake (Product) | -HC90/111mg、-F95R/106mg |
| | Applied Indication (Example) | ABA improves quality of sleep (Depth of sleep, Clean awakening) Which were reported to have useful features is. |
| | Scientific Basis of Functionality | SR |

| | | |
|---|---|--|
|  <p>Skin Elasticity</p>  | Product Name | ORYZA GABA™ EXTRACT |
| | Ingredient Involved with the Functionality/Daily Intake | GABA (Gamma-aminobutyric acid)/100mg |
| | Daily Intake (Product) | -HC90/111mg、-F95R/106mg |
| | Applied Indication (Example) | GABA inhibit the decrease in skin elasticity There are functions that help skin health which has been reported. |
| | Scientific Basis of Functionality | SR |


| | | |
|--|---|--|
|  <p>Relieving Mental Stress</p>  | Product Name | ORYZA GABA™ EXTRACT |
| | Ingredient Involved with the Functionality/Daily Intake | GABA (Gamma-aminobutyric acid)/28mg |
| | Daily Intake (Product) | -HC90/31mg、-F95R/30mg |
| | Applied Indication (Example) | It has been reported that GABA has an effect of temporarily relieving mental stress caused by desk work. |
| | Scientific Basis of Functionality | SR |


| | | |
|--|---|---|
|  <p>Relieving Mental Stress & Relaxing</p>  | Product Name | ORYZA GABA™ EXTRACT |
| | Ingredient Involved with the Functionality/Daily Intake | GABA (Gamma-aminobutyric acid)/100mg |
| | Daily Intake (Product) | -HC90/111mg、-F95R/106mg |
| | Applied Indication (Example) | It has been reported that GABA has an effect of temporarily relieving mental stress caused by desk work as well as relaxing effect. |
| | Scientific Basis of Functionality | SR |


Indication of stress-related functionality of ORYZA GABA® EXTRACT:


When the daily amount of the involved ingredient is 100 mg, both health claims “temporarily relieve mental stress” and “relaxing action” can be used.


When the daily amount of the involved ingredient is 28 mg however, only the health claim “temporarily relieve mental stress” can be used.


| | | |
|--|---|--|
|  <p>Lower on Uric</p> | Product Name | KIKU FLOWER EXTRACT |
| | Ingredient Involved with the Functionality/Daily Intake | Luteolin /10mg |
| | Daily Intake (Product) | -P/100mg |
| | Applied Indication (Example) | It has been reported that luteolin has lowering effect of lowering on uric acid level people with relatively high uric acid level. |
| | Scientific Basis of Functionality | SR、 Clinical testing |



| | | |
|---|---|---|
|  <p>Reduce Eye Discomfort</p> | Product Name | KIKU FLOWER EXTRACT |
| | Ingredient Involved with the Functionality/Daily Intake | Luteolin /20mg |
| | Daily Intake (Product) | -P/200mg |
| | Applied Indication (Example) | Luteolin has been reported to reduce eye discomfort caused by pollen, dust, and house dust. |
| | Scientific Basis of Functionality | SR |


| | | |
|--|---|---|
|  <p>Skin Elasticity</p> | Product Name | TOMATO SEED EXTRACT |
| | Ingredient Involved with the Functionality/Daily Intake | Lycoperoside H /1mg |
| | Daily Intake (Product) | - P/200mg |
| | Applied Indication (Example) | Lycoperoside H has been reported to maintain skin elasticity and promote skin health. |
| | Scientific Basis of Functionality | SR |


| | | |
|--|---|--|
|  <p>Improvement of BMI by Reducing Visceral fat and Weight</p> | Product Name | COFFEE BEAN EXTRACT |
| | Ingredient Involved with the Functionality/Daily Intake | Chlorogenic acids/180mg |
| | Daily Intake (Product) | -WSP/450mg |
| | Applied Indication (Example) | Chlorogenic acids from green coffee beans reduce body mass index (BMI) of people who with a higher BMI value, which indicates the degree of obesity. |
| | Scientific Basis of Functionality | SR |

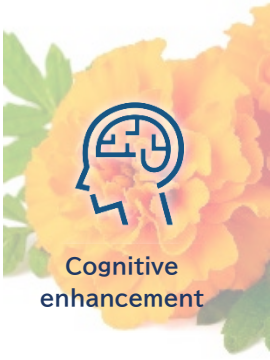
| | | |
|--|---|--|
|  <p>Lower Blood Sugar Level After Meals</p> | Product Name | COFFEE BEAN EXTRACT |
| | Ingredient Involved with the Functionality/Daily Intake | Chlorogenic acids /120mg |
| | Daily Intake (Product) | -WSP/300mg |
| | Applied Indication (Example) | “Lowering postprandial glucose Level in blood by chlorogenic acids from green coffee beans” has been reported. |
| | Scientific Basis of Functionality | SR |


| | | |
|--|---|---|
|  <p>Improvement of Liver Function(Lower Blood ALT Level)</p> | Product Name | BROCCOLI SPROUT EXTRACT |
| | Ingredient Involved with the Functionality/Daily Intake | Sulforaphane glucosinolate /24mg |
| | Daily Intake (Product) | -EX/190mg |
| | Applied Indication (Example) | Sulforaphane glucosinolate which could lower a slightly elevated ALT near to healthy region (a marked of liver function) value in blood of health middle aged and elderly” has been reported. |
| | Scientific Basis of Functionality | SR |


| | | |
|---|---|--|
|  <p>Eye Moisturization Reducing Eye Fatigue</p>  | Product Name | MAQUI BERRY EXTRACT (MaquiBright®) |
| | Ingredient Involved with the Functionality/Daily Intake | Delphinidin-3,5-diglucoside /4mg |
| | Daily Intake (Product) | -P35/40mg |
| | Applied Indication (Example) | Delphinidin-3,5-diglucoside supports the deteriorating eye moisturization of healthy people who do VDT work such as smartphones and video games on daily basis, and causes temporary eye fatigue, temporary feeling and shoulder strain due to VDT work. |
| | Scientific Basis of Functionality | SR, Clinical testing |


| | | |
|---|---|--|
|  <p>Protect the Eye From Daily Photoirritations</p> | Product Name | LUTEIN |
| | Ingredient Involved with the Functionality/Daily Intake | Lutein ester /40mg |
| | Daily Intake (Product) | -P80/50mg |
| | Applied Indication (Example) | It has been reported that lutein ester has the ability to increase the concentration of pigments accumulated in the central part of the retina and protect the eye from daily photoirritations such as blue light. |
| | Scientific Basis of Functionality | SR |


| | | |
|--|---|---|
|  <p>Improve visual functions</p> | Product Name | LUTEIN (FREE) |
| | Ingredient Involved with the Functionality/Daily Intake | Lutein 10 mg, Zeaxanthin 2mg |
| | Daily Intake (Product) | -20F/50mg |
| | Applied Indication (Example) | It has been reported that free lutein & zeaxanthin have functions of working to increase the amount of pigment in the macula of the eye, protecting against light stress such as ultraviolet rays and blue light, improving contrast sensitivity (visual function that distinguishes color shades and reduces blurring and haze) and glare recovery (visual function that recovers from glare). |
| | Scientific Basis of Functionality | SR |


| | | |
|--|---|--|
|  <p>Cognitive enhancement</p> | Product Name | LUTEIN (FREE) |
| | Ingredient Involved with the Functionality/Daily Intake | Lutein 10 mg, Zeaxanthin 2mg |
| | Daily Intake (Product) | -20F/50mg |
| | Applied Indication (Example) | It has been reported that free lutein & zeaxanthin are responsible for maintaining some of the cognitive functions that decline with age: judgment (the ability to respond and reason appropriately in changing situations) and attention (the ability to focus on one thing and the ability to pay attention to multiple things). |
| | Scientific Basis of Functionality | SR |


| | | |
|---|---|--|
|  <p>Sleep</p> | Product Name | LUTEIN (FREE) |
| | Ingredient Involved with the Functionality/Daily Intake | Lutein 20 mg, Zeaxanthin 4.08mg |
| | Daily Intake (Product) | -20F/100mg |
| | Applied Indication (Example) | It has been reported that free lutein & zeaxanthin help reduce eye fatigue. It also been reported to reduce temporary mental stress and improve sleep quality. |
| | Scientific Basis of Functionality | SR |


| | | |
|---|---|--|
|  <p>Motor Function</p> | Product Name | BLACK GINGER EXTRACT |
| | Ingredient Involved with the Functionality/Daily Intake | ①Black ginger-derived 5,7-dimethoxy-flavone/2.5mg ②Black ginger-derived 5-hydroxy-7-methoxyflavone /0.5mg |
| | Daily Intake (Product) | -P/100mg |
| | Applied Indication (Example) | It has been reported that 5,7-dimethoxyflavone and 5-hydroxy-7-methoxyflavone derived from black ginger have effects to support and maintain the walking function which declined by age. |
| | Scientific Basis of Functionality | SR, Clinical testing |

| | | |
|---|---|--|
|  <p>Lower Blood Pressure</p> | Product Name | PERILLA SEED Oil |
| | Ingredient Involved with the Functionality/Daily Intake | α -linolenic acid /2.6g |
| | Daily Intake (Product) | OIL/5g |
| | Applied Indication (Example) | It has been reported that α -linolenic acid has a function of lowering blood pressure in people with high blood pressure. |
| | Scientific Basis of Functionality | SR |

| | | |
|---|---|--|
|  <p>Lower LDL Cholesterol Level</p> | Product Name | PERILLA SEED Oil |
| | Ingredient Involved with the Functionality/Daily Intake | α -linolenic acid /5.49g |
| | Daily Intake (Product) | OIL/10g |
| | Applied Indication (Example) | α -Linolenic acid has been reported to lower the level of bad (LDL) cholesterol in the blood. |
| | Scientific Basis of Functionality | SR |




| | | |
|---|---|--|
|  <p>Improvement of BMI by Reducing Visceral fat and Weight</p> | Product Name | FUCOXANTHIN 、 FucoRex TM |
| | Ingredient Involved with the Functionality/Daily Intake | FUCOXANTHIN /3mg |
| | Daily Intake (Product) | FUCOXANTHIN –5KW/60mg、 FucoRex TM –3/100mg |
| | Applied Indication (Example) | Fucoxanthin which could help to lower BMI value by reducing visceral fat and body weight” has been reported. It is a food suitable for those who possess a higher BMI value. |
| | Scientific Basis of Functionality | SR |

| | | |
|---|---|---|
|  <p>Reduce temporary loss of vitality</p> | Product Name | PASSIONFLOWER EXTRACT |
| | Ingredient Involved with the Functionality/Daily Intake | Flavonoids from passionflower/6 mg |
| | Daily Intake (Product) | -P/200mg |
| | Applied Indication (Example) | Flavonoids from passionflower have been reported to have the function of reducing the temporary loss of vitality (feeling full of energy, full of vitality, etc.) that occurs in daily life such as work and housework. |
| | Scientific Basis of Functionality | SR |

| | | |
|---|---|---|
|  <p>Lower triglycerides and total cholesterol in the blood</p> | Product Name | RICE BRAN OIL |
| | Ingredient Involved with the Functionality/Daily Intake | GAMMA ORYZANOL/22.3mg |
| | Daily Intake (Product) | oil/14g |
| | Applied Indication (Example) | This product contains ingredients that have been reported to lower blood neutral fat and total cholesterol. |
| | Scientific Basis of Functionality | SR |



Oryza's Rice Oils and Defatted Bran Products



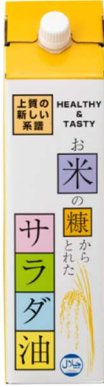



| <Rice Oil> | | |
|---|---|---|
| Product Name | Features and Main Functions | Packaging |
| RICE BRAN OIL (JAS product)  | <ul style="list-style-type: none"> • Edible oil purified from rice bran by low temperature extraction (NEM) and NRM method. • Its features are a good flavor and taste, high stability against oxidation, and high stability at low temperatures. *NEM (New Extraction Method) *NRM (New Refining Method) | 600 g 1500 g 1650 g 16.5 kg 181.5 kg Lorry |
| RICE FRYING OIL (JAS product)  | <ul style="list-style-type: none"> • Edible oil purified from rice bran by low temperature extraction (NEM) and NRM method. • Its features are a refreshing taste and smooth texture. | 600 g 16.5 kg 181.5 kg Lorry |
| ORYZA RICE GERM OIL  | <ul style="list-style-type: none"> • Rice germ oil with high antioxidative property containing 1.2 to 1.5% gamma-oryzanol. • It provides a moisturizing effect, UV-ray absorbing effect, and tyrosinase inhibition. | 16 kg |
| RICE GERM OIL | <ul style="list-style-type: none"> • Liquid oil extracted from brown rice germ and the membrane layer of brown rice seeds by the NEM method and generated by the physical refining method. • It contains many active ingredients such as gamma-oryzanol, vitamin E, and phytosterol which are present in germs and membrane layer of seeds in a sugar-coated form. • It has an anti-oxidative effect as well as cholesterol-lowering, UV-ray absorption, and lipid peroxides reducing effect. | 16 kg |
| ORYZA OIL-EX | <ul style="list-style-type: none"> • Functional edible oil extracted from rice bran and purified by the NEM and NRM methods. • It contains functional components specific in rice. → Tocopherol (vitamin E): 82 mg/100 g or more → Tocotrienol: 89 mg/100g or more → Gamma-oryzanol: 71 mg/100 g or more → Sterol: 1,071 mg/100 g or more • It has an anti-oxidative effect, lowers LDL-cholesterol, and suppresses generation of lipid peroxides. | 16 kg |

| <Defatted Bran (Food)> | | |
|------------------------|---|----------------|
| Product Name | Features and Main Functions | Packaging |
| ORYZA DRIM | <ul style="list-style-type: none"> • Special defatted bran containing large amounts of plant fibers, proteins, and sugars. • Finely-ground and grain size adjusted. Water contents is less than 2%. • Dietary fiber content: 33.2 g/100 g • Suitable for weight control and constipation. | 15 kg |
| ORYZA GERM-DLP | <ul style="list-style-type: none"> • Special defatted rice germ created by grinding carefully-selected NEM defatted rice germ. Its grain size is adjusted so that the pass through rate is 90% or more for a 42 mesh and 70% or more for a 60 mesh. • Single-dose test, LD50: 2,000 mg/kg or more | 15 kg 20 kg |
| ORYZA GERM-DLS | <ul style="list-style-type: none"> • Special defatted rice germ created by grinding carefully-selected NEM defatted rice germ. Its grain size is adjusted so that the pass through rate is 90% or more for a 200 mesh. • Single-dose test, LD50: 2,000 mg/kg or more | 15 kg 20 kg |

| <Defatted Bran (Feed)> | | |
|------------------------|---|--|
| Product Name | Features and Main Functions | Packaging |
| DEFATTED BRAN 12M | <ul style="list-style-type: none"> • Its feature is high storage efficiency (bridge formation does not occur). This is achieved as bran particles are fine and spherical because extruder processing is used in the rice bran low temperature extraction method (NEM). • As it does not go through harsh heat treatment, it contains high water-soluble protein content and phospholipid remains in the defatted bran, which makes it easy to digest and be absorbed. • It is suitable for animal feed, fertilizer, and culture media. | 20 kg Contact us for smaller portions |
| DEFATTED BRAN 25M | <ul style="list-style-type: none"> • Special defatted rice bran created by grinding carefully-selected NEM defatted rice bran and adjusting the grain size. • It is suitable for culture media of various fungi, diluent for calibration substances for animal drugs, and diluent for premixing vitamins, etc. | 15 kg 20 kg |



Oryza's Rice Oils

| | | | |
|------------------------|---|---|--|
| Product Name |   |   |   |
| | ORYZA RICE BRAN OIL | ORYZA RICE BRAN OIL | ORYZA RICE OIL |
| Raw Material | Rice Bran Oil | Rice Bran Oil | Rice Bran Oil |
| Packaging | 600 g x 20 | 1500 g x 10 | 1650 g x 6 |
| Expiration Date | 2 years | 2 years | 2 years |

| | | |
|------------------------|---|---|
| Product Name |   |   |
| | Rice Frying oil With/without silicon | Rice Bran Oil With/without silicon |
| Content | 16.5 kg | 16.5 kg |
| Expiration Date | 2 years | 2 years |

[Other]

For retailers and mass merchants, 600 g and 1650 g specification products as well as PB manufacture are available.

Please contact our sales personnel for production lot and other details.

List of Patent

Japanese Patent

| No. | Products | Title of the invention | Patent No. |
|-----|----------------------------|---|--|
| 1 | RICE BRAN OIL | Molding equipment used for pretreatment to extract crude oil from rice bran | 1192721 (Expiration of validity period) |
| 2 | FERULIC ACID | Oil-solubilized skin rub for ferulic acid ester | 1371867 (Expiration of validity period) |
| 3 | RICE BRAN OIL | Filtration device | 1480318 (Expiration of validity period) |
| 4 | MELANOIDIN | Melanoidin-containing skin cosmetics | 1401763 (Expiration of validity period) |
| 5 | RICE BRAN OIL | Method for separating fatty acids from crude oils and fats | 1998674 (Expiration of validity period) |
| 6 | PEARL BARLEY | Hair nourishing agent and hair cosmetics | 3496896 (Expiration of validity period) |
| 7 | ORYZA GABA | Degreased food material enriched with γ -aminobutyric acid | 2810993 (Expiration of validity period) |
| 8 | PERILLA SEED EXTRACT | Lipoxygenase inhibitor | 4231559 (Expiration of validity period) |
| 9 | PERILLA SEED EXTRACT | Antibacterial agent for oral cavity | 4112730 (Expiration of validity period) |
| 10 | EVENING PRIMROSE EXTRACT | Carbohydrate absorption inhibitor and its manufacturing method | 4873824 (Expiration of validity period) |
| 11 | LITCHI SEED EXTRACT | Composite for beauty enhancement | 3708036 (Expiration of validity period) |
| 12 | ORYZA TOCOTRIENOL™ | A technology of powder preparation which could be used in food material and cosmetic material | 5306626 (Expiration of validity period) |
| 13 | FUCOIDAN | An immunological determination method of fucoidan content which used a fucoidan specific antibody | 5502298 (Expiration of validity period) |
| 14 | BROCCOLI SPROUT EXTRACT | For external use on skin | 3754646 (Expiration of validity period) |
| 15 | RICE BRAN OIL | For external use on skin | 3704498 (Expiration of validity period) |
| 16 | LITCHI SEED EXTRACT | Elastase inhibitor | 3953387 (Expiration of validity period) |
| 17 | EVENING PRIMROSE EXTRACT | Anti-H.pylori composite | 4541662 (Expiration of validity period) |
| 18 | ALPHA LIPOIC ACID | Composite for beauty enhancement | 4849792 |
| 19 | YUZU SEED EXTRACT | Composite for skin improvement | 5014569 |
| 20 | COFFEE BEAN EXTRACT | Composite for weight control | 4499665 (Expiration of validity period) |
| 21 | JAPANESE BUTTERBUR EXTRACT | Anti-allergic agent | 4822246 |
| 22 | LITCHI SEED EXTRACT | Composite for skin improvement | 4982052 (Expiration of validity period) |
| 23 | KIWI SEED EXTRACT | Composite for beauty enhancement) | 4925692 |
| 24 | KIWI SEED EXTRACT | Anti-inflammatory agent and painkiller | 5462430 |
| 25 | CHINESE CHIVE SEED EXTRACT | Immuno-stimulator | 4925761 (Expiration of validity period) |
| 26 | RED GINGER EXTRACT | Anti-inflammatory agent and painkiller | 5303697 |
| 27 | BROCCOLI SPROUT EXTRACT | Sebum production promoter | 5571280 |

※This list includes patents for preparations for topical use (cosmetics) as well.

| No. | Products | Title of the invention | Patent No. |
|-----|---|--|---|
| 28 | LITCHI SEED EXTRACT,WALNUT POLYPHENOL,STRAWBERRY SEED EXTRACT,LINGONBERRY EXTRACT, WHITE JELLY FUNGUS EXTRACT | Liquid composite, as well as beverages and cosmetics using it | 5525700 |
| 29 | STRAWBERRY SEED EXTRACT | Gene expression promoter for skin beautification, as well as moisturizing and skin beautifying composites using it | 5996156 |
| 30 | LINGONBERRY EXTRACT | Pigmentation suppressor | 5525716 |
| 31 | SAKURA EXTRACT | Nitric oxide production inhibitor | 5783784 |
| 32 | POLYAMINE | Keratin expression promoter and nail beautifying composite using the same | 5877980 |
| 33 | PURPLE RICE EXTRACT | ER(Endoplasmic reticulum) stress reducer | 5916203 |
| 34 | WATERSHIELD EXTRACT | New compound and its use | 6075025 |
| 35 | BIRD'S NEST EXTRACT | Tight junctions formation promoter | 6358692 |
| 36 | MAQUI BERRY EXTRACT | Whitening agent | 6144536 |
| 37 | ORYZA POLYAMINE | Ingredient of cosmetics for eyelashes and cosmetics for eyelashes using it | 6192036 |
| 38 | WATERSHIELD EXTRACT | Composite for anti-aging of skin | 6198463 |
| 39 | MAQUI BERRY EXTRACT | Dry eye prevention and treatment agent | 6265500 |
| 40 | SAKURA EXTRACT | Suppression of AGE production | 5878023 |
| 41 | SAKURA EXTRACT | Suppression of AGE production | 5792844 |
| 42 | FERMENTED STRAWBERRY SEED PRODUCT | Lipid accumulation promoter in sebaceous gland cells | 6433053 |
| 43 | BLACK GINGER EXTRACT | AMPK activator | 6086953 |
| 44 | PURPLE TEA EXTRACT | Circadian rhythm adjustment agent | 6227851 Expiration of duration of patent right |
| 45 | KIKU FLOWER EXTRACT | Fibronectin expression promoting material | 6452104 |
| 46 | STRAWBERRY SEED EXTRACT | Gene expression promoter for filaggrin and involucrin | 6516246 |
| 47 | STRAWBERRY SEED EXTRACT | Gene expression promoter for filaggrin and involucrin | 6635615 |
| 48 | NADESHIKO | Nrf2 related gene expression promoter | 6529119 |
| 49 | NADESHIKO | Foam stabilizer and detergent | 6635615 |
| 50 | BLACK CUMIN | Body odor component-reducing agent, as well as body odor-reducing agents using this component | 6547050 |
| 51 | FERMENTED RICE GERM EXTRACT | To provide a method for producing β -sitosterol glucoside containing composition | 6604806 |
| 52 | FERMENTED RICE GERM EXTRACT | The method of stigmaterol Containing Compositions | 6584899 |
| 53 | FERMENTED RICE GERM EXTRACT | The method of glucosylceramide-containing composition | 6579619 |
| 54 | FERMENTED RICE GERM EXTRACT | Producing method of composition containing ergosterol peroxide | 6645791 |
| 55 | GAMMA ORYZANO | γ -Oryzanol soluble liquid composition | 6639892 |
| 56 | ORYZA CERAMIDE™ | Glucosylceramide production and metabolic gene expression promotive agent used on the skin | 6723737 |
| 57 | AGUAJE EXTRACT | Estrogen activity regulation and indefinite complaints ameliorative agent | 6742537 |

※This list includes patents for preparations for topical use (cosmetics)

| No. | Products | Title of the invention | Patent No. |
|-----|-----------------------------|--|------------|
| 58 | BLACK GINGER EXTRACT | Energy activator for muscle cells | 6751709 |
| 59 | TOMATO SEED EXTRACT | ECM cycle normalizing agent | 6799114 |
| 60 | ORYZA PEPTIDE | N-acetyltransferase activator | 6811455 |
| 61 | BROCCOLI SPROUT EXTRACT | Carbonylation inhibitor | 6902392 |
| 62 | PASSIONFLOWER EXTRACT | Skin care material | 6909569 |
| 63 | PURPLE TEA EXTRACT | AMPK activator | 6933781 |
| 64 | CALLUNA VULGARIS | Carbonylation and saccharification inhibitor | 6964393 |
| 65 | BLACK GINGER EXTRACT | An inhibitor of TNF- α and IL-6 production and which could be used in muscle inflammation | 6954960 |
| 66 | cosmeHerbest™ JUNSAI | Hair care material | 6945261 |
| 67 | PASSIONFLOWER EXTRACT | Improving Life Rhythm | 7007798 |
| 68 | NADESHIKO | Prevention and improvement agent for obvious pore | 7007788 |
| 69 | TOMATO SEED EXTRACT | ECM cycle normalizing agent | 7026181 |
| 70 | FERMENTED RICE GERM EXTRACT | Muscle enhancer | 7104193 |
| 71 | SEABERRY EXTRACT | 5 α -reductor inhibitor | 7237204 |
| 72 | FUCOXANTHIN | Sarcopenia obesity preventive/improving agent | 7246965 |
| 73 | CosmeHerbest™ BLACK CUMIN | Stress odor component reducer | 7297454 |

※This list includes patents for preparations for topical use (cosmetics) as well.

International Patent

| No. | Products | Title of the invention | Country | Patent No. |
|-----|---|---|----------|---|
| 1 | RICE BRAN OIL | Preprocessing method for extraction of oil from rice bran, as well as the processor using this method | USA | 4384837 (Expiration of validity period) |
| | | | Taiwan | 13898 (Expiration of validity period) |
| | | | Korea | 16077 (Expiration of validity period) |
| 2 | PERILLA SEED EXTRACT | Lipoxygenase inhibiting agent | USA | US 6217875 (Expiration of validity period) |
| 3 | EVENING PRIMROSE EXTRACT | Carbohydrate absorption inhibitor | USA | US 6932990 (Expiration of validity period) |
| | | | EU | EP 1312374 (Expiration of validity period) |
| | | | China | CN 1268351 (Expiration of validity period) |
| 4 | COFFEE BEAN EXTRACT | Composite for weight control | USA | US 8802164 (Expiration of validity period) |
| | | | EU | EP 1674106 (Expiration of validity period) |
| | | | China | CN 1863543 (Expiration of validity period) |
| 5 | RED GINGER EXTRACT | Anti-inflammatory agent | USA | US 8017162 |
| 6 | SAKURA EXTRACT <i>Florabella</i> (USA) | Suppression of AGE production | USA | US 9381223 |
| | | | China | CN 102883733 |
| | | | Malaysia | MY173496 |
| 7 | MAQUI BERRY EXTRACT <i>MaquiBright</i> TM | Dry eye prevention and treatment agent | EU | EP 2937091 |
| | | | Canada | CA2895353 |
| | | | Israel | 239478 |
| | | | Korea | 10-2070479 |
| | | | USA | US11033566 |
| 8 | PURPLE TEA EXTRACT <i>PURPLE FORCE</i> | AMPK activator | USA | US11478495 |

List of Papers

| | | |
|---|----------------------------|--|
| A | AGUAJE EXTRACT | Takara T., Yamamoto K., Suzuki N., Yamashita S., Iio S., Noguchi H., Kakinuma T., Baba. Yamamoto S., Morikawa T., Takeda S. , Shimoda H. Moriche Palm (Aguaje) Extract improves indefinite complaints in Japanese females: a randomized, placebo-controlled, double-blind trial. <i>Functional Foods in Health and Disease</i> , 10(9), 379-396 (2020). |
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★ : A study on Oryza products conducted by an outside party.

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★ : A study on Oryza products conducted by an outside party.

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List of Halal Authorized Products



| Products | | | Products | | |
|----------|----------------------------------|----------|----------|--------------------------|----------|
| 1 | BLACK GINGER EXTRACT-P | Food | 31 | ORYZA FERULIC ACID | Food |
| 2 | BLACK GINGER EXTRACT-PC | cosmetic | 32 | ORYZA FERULIX | cosmetic |
| 3 | BLACK GINGER EXTRACT-WSP | Food | 33 | FUCOXANTHIN-5KW | Food |
| 4 | BLACK GINGER EXTRACT-WSPC | cosmetic | 34 | FUCOXANTHIN-5CKW | cosmetic |
| 5 | ORYZA BROCCOLI SPROUT POWDER | Food | 35 | ORYZA GAMMA ORYZANOL | Food |
| 6 | ORYZA BROCCOLI SPROUT EXTRACT | Food | 36 | ORYZAGAMMA™-V | cosmetic |
| 7 | BROCCOLI SPROUT EXTRACT-PC | cosmetic | 37 | GAMMA ORYZANOL-E | Food |
| 8 | BROCCOLI SPROUT EXTRACT -PS1 | Food | 38 | ORYZA GAMMAX® | Food |
| 9 | BROCCOLI SPROUT EXTRACT -PSC1 | cosmetic | 39 | KIKU FLOWER EXTRACT-P | Food |
| 10 | BROCCOLI SPROUT EXTRACT-EX | Food | 40 | KIKU FLOWER EXTRACT-PC | cosmetic |
| 11 | COCOA EXTRACT-P | Food | 41 | KIWI SEED EXTRACT-P | Food |
| 12 | COCOA EXTRACT-PC | cosmetic | 42 | KIWI SEED EXTRACT-PT | Food |
| 13 | COCOA EXTRACT-WSP | Food | 43 | KIWI SEED EXTRACT-PC | cosmetic |
| 14 | COCOA EXTRACT-WSPC | cosmetic | 44 | KIWI SEED EXTRACT-WSP | Food |
| 15 | CITRUS UNSHIU EXTRACT-P | Food | 45 | KIWI SEED EXTRACT-WSPC | cosmetic |
| 16 | CITRUS UNSHIU EXTRACT-PC | cosmetic | 46 | KIWI EXTRACT-P1 | Food |
| 17 | CITRUS UNSHIU EXTRACT-LC | cosmetic | 47 | KRILL OIL | Food |
| 18 | COFFEE BEAN EXTRACT-P | Food | 48 | LINGONBERRY EXTRACT-J | Food |
| 19 | COFFEE BEAN EXTRACT-PCR | cosmetic | 49 | LITCHI SEED EXTRACT-P | Food |
| 20 | COFFEE BEAN EXTRACT-WSP | Food | 50 | LITCHI SEED EXTRACT-PC | cosmetic |
| 21 | COPRINO EXTRACT-P0.5 | Food | 51 | LITCHI SEED EXTRACT-WSP | Food |
| 22 | COPRINO EXTRACT-PC0.5 | cosmetic | 52 | LITCHI SEED EXTRACT-WSPC | cosmetic |
| 23 | EVENING PRIMROSE EXTRACT-P | Food | 53 | LITCHI EXTRACT-P | Food |
| 24 | EVENING PRIMROSE EXTRACT-PC | cosmetic | 54 | LUTEIN-P80A | Food |
| 25 | EVENING PRIMROSE EXTRACT-WSPS | Food | 55 | LUTEIN-PC80 | cosmetic |
| 26 | EVENING PRIMROSE EXTRACT-WSPC | cosmetic | 56 | LUTEIN-P80 | Food |
| 27 | FERMENTED RICE GERM EXTRACT-P | Food | 57 | LUTEIN-P40 | Food |
| 28 | FERMENTED RICE GERM EXTRACT-PC | cosmetic | 58 | LUTEIN-PC40 | cosmetic |
| 29 | FERMENTED RICE GERM EXTRACT-WSP | Food | 59 | LUTEIN-20FA | Food |
| 30 | FERMENTED RICE GERM EXTRACT-WSPC | cosmetic | 60 | LUTEIN-P20FA | Food |

| Products | | | Products | | |
|----------|----------------------------|---------------|----------|--|---------------|
| 61 | MAQUI BERRY EXTRACT-P35 | Food | 95 | PERILLA SEED EXTRACT-LC | cosmetic |
| 62 | MAQUI BERRY EXTRACT-PC35 | cosmetic | 96 | PERILLA SEED EXTRACT-LOGC | cosmetic |
| 63 | MaquiBright™ | Food | 97 | POLYAMINE-P | Food |
| 64 | MAQUI BERRY EXTRACT-LC | cosmetic | 98 | PSORALEACORYLIFOLIAFRUITEXTRACT (PhytoRetinol™)-3 | Food |
| 65 | MAQUI BERRY EXTRACT-J | Food | 99 | PSORALEACORYLIFOLIAFRUITEXTRACT (PhytoRetinol™)-3C | cosmetic |
| 66 | MOUNTAIN CAVIAR EXTRACT-P | Food | 100 | PSORALEACORYLIFOLIAFRUITEXTRACT (PhytoRetinol™)-P1 | Food |
| 67 | ORYZA CERAMIDE™-PCD | Food | 101 | PSORALEACORYLIFOLIAFRUITEXTRACT(PhytoRetinol™)-PC1 | cosmetic |
| 68 | ORYZA CERAMIDE™-PC | cosmetic | 102 | PURPLE RICE EXTRACT-P | Food |
| 69 | ORYZA CERAMIDE™-WSP | Food | 103 | PURPLE RICE EXTRACT-PC | cosmetic |
| 70 | ORYZA CERAMIDE™-WSPC | cosmetic | 104 | PURPLE TEA EXTRACT-P | Food |
| 71 | ORYZA CERAMIDE™-L0.8 | Food | 105 | PURPLE TEA EXTRACT-PC | cosmetic |
| 72 | ORYZA CERAMIDE™-LC0.8 | cosmetic | 106 | PURPLE TEA EXTRACT-WSPS | Food |
| 73 | ORYZA GABA™ GERM-P | Food | 107 | PURPLE TEA EXTRACT-WSPD | Food |
| 74 | ORYZA GABA™ EXTRACT-C | Food+cosmetic | 108 | PURPLE TEA EXTRACT-WSPDT | Food |
| 75 | ORYZA GABA™ EXTRACT-HC5 | Food+cosmetic | 109 | PURPLE TEA EXTRACT-LC | cosmetic |
| 76 | ORYZA GABA™ EXTRACT-F95 | Food | 110 | RED GINGER EXTRACT-P | Food |
| 77 | ORYZA GABA™ EXTRACT-F95R | Food | 111 | RED GINGER EXTRACT-WSP | Food |
| 78 | ORYZA PEPTIDE™-P60 | Food | 112 | RED GINGER EXTRACT-LC | cosmetic |
| 79 | ORYZA PEPTIDE™ PC60 | cosmetic | 113 | RED RICE EXTRACT-P | Food |
| 80 | ORYZA POLYAMINE™-LC(BG30) | cosmetic | 114 | RED RICE EXTRACT-PC | cosmetic |
| 81 | ORYZA POLYAMINE™-P | Food | 115 | RED RICE EXTRACT-WSP | Food |
| 82 | ORYZA PROTEIN™ -P70 | Food | 116 | RED RICE EXTRACT-WSPC | cosmetic |
| 83 | ORYZA PROTEIN™-PC70 | cosmetic | 117 | RESVERATROL-P5 | Food |
| 84 | ORYZA PERILLA SEED OIL | Food+cosmetic | 118 | RESVERATROL-PC5 | cosmetic |
| 85 | PASSIONFLOWER EXTRACT-P | Food | 119 | Safleep™ (SAFFRON EXTRACT)-P | Food |
| 86 | PASSIONFLOWER EXTRACT-PC | cosmetic | 120 | SAKURA EXTRACT-P | Food |
| 87 | PASSIONFLOWER EXTRACT-WSP | Food | 121 | SAKURA EXTRACT-PC | cosmetic |
| 88 | PASSIONFLOWER EXTRACT-WSPC | cosmetic | 122 | SAKURA EXTRACT-LC | cosmetic |
| 89 | PERILLA SEED EXTRACT-P | Food | 123 | SAKURA SYRUP | Food |
| 90 | PERILLA SEED EXTRACT-PC | cosmetic | 124 | SEABERRY EXTRACT-P | Food |
| 91 | PERILLA SEED EXTRACT-PO | Food | 125 | SEABERRY EXTRACT-PC | cosmetic |
| 92 | PERILLA SEED EXTRACT-POC | cosmetic | 126 | SEABERRY EXTRACT-WSP | Food |
| 93 | PERILLA SEED EXTRACT-WSP | Food | 127 | SEABERRY EXTRACT-WSPC | cosmetic |
| 94 | PERILLA SEED EXTRACT-WSPC | cosmetic | 128 | SEABERRY FRUIT OIL | Food+cosmetic |

| Products | | | Products | | |
|----------|--|----------|----------|---|---------------|
| 129 | FemBerry™ (STRAWBERRY GUAVA EXTRACT)-P | Food | 152 | ORYZA RICE GERM OIL | Food・cosmetic |
| 130 | STRAWBERRY SEED EXTRACT-P | Food | 153 | ORYZA OIL S-1 | cosmetic |
| 131 | STRAWBERRY SEED EXTRACT-PC | cosmetic | 154 | ORYZA RICE BRAN OIL (こめサラダ油) | Food |
| 132 | Lycolift™(TOMATO SEED EXTRACT)-P | Food | 155 | ORYZA RICE BRAN OIL (オリザこめ油) | Food |
| 133 | Lycolift™(TOMATO SEED EXTRACT)-PC | cosmetic | 156 | ORYZA RICE BRAN OIL (オリザ白しめ油) | Food |
| 134 | Lycolift™(TOMATO SEED EXTRACT)-LC | cosmetic | 157 | ORYZA RICE BRAN OIL (こめ白絞油) | Food |
| 135 | TOMATO EXTRACT-P | Food | 158 | ORYZA RICE BRAN OIL (お米の糠からとれたサラダ油) | Food |
| 136 | ResoVine™(VINE TEA EXTRACT)-P | Food | 159 | ORYZA RICE BRAN OIL (お米のぬかからとれたサラダ油) | Food |
| 137 | ResoVine™(VINE TEA EXTRACT)-LC | cosmetic | 160 | ORYZA RICE BRAN OIL (玄米油) | Food |
| 138 | WATER SHIELD EXTRACT-P | Food | 161 | ORYZA RICE BRAN OIL (オリザの米油) | Food |
| 139 | WATER SHIELD EXTRACT-PC | cosmetic | 162 | ORYZA RICE BRAN OIL (こめ油) | Food |
| 140 | WATER SHIELD EXTRACT-WSP | Food | 163 | ORYZA DRIM V-50 | Food |
| 141 | WATER SHIELD EXTRACT-WSPC | cosmetic | 164 | cosmeHerbest™ ORANGE | cosmetic |
| 142 | WHITE JELLY FUNGUS EXTRACT- P | Food | 165 | cosmeHerbest™ KIWI | cosmetic |
| 143 | WHITE JELLY FUNGUS EXTRACT- PC | cosmetic | 166 | cosmeHerbest™ SAKURA | cosmetic |
| 144 | YUZU SEED EXTRACT-P | Food | 167 | cosmeHerbest™ SEABERRY | cosmetic |
| 145 | YUZU SEED EXTRACT-PC | cosmetic | 168 | cosmeHerbest™ STRAWBERRY | cosmetic |
| 146 | YUZU SEED EXTRACT-WSP | Food | 169 | cosmeHerbest™ NADESHIKO | cosmetic |
| 147 | YUZU SEED EXTRACT-WSPC | cosmetic | 170 | cosmeHerbest™ YUZU | cosmetic |
| 148 | YUZU SEED EXTRACT-PS20 | Food | 171 | cosmeHerbest™ LITCHI | cosmetic |
| 149 | Zanthoxylum Bungeanum Oil (SalivaMoist™) -5 | Food | 172 | cosmeHerbest™ PASSIFLORA | cosmetic |
| 150 | Zanthoxylum Bungeanum Oil (SalivaMoist™) -P5 | Food | 173 | cosmeHerbest™ JUNSAI | cosmetic |
| 151 | Zanthoxylum Bungeanum Oil (SalivaMoist™) -P10 | Food | 174 | cosmeHerbest™ BLACK CUMIN | cosmetic |

※All list of halal authorized products of Oryza were introduced in this chapter.

※Please check with our staff regarding the HALAL status of these products outside Japan, before exporting them.

Guide to Contract Manufacturing

1. Contract Manufacturing operations

Food ingredients, food additives, health food ingredients, functional food ingredients, cosmetic ingredients, pharmaceutical ingredients/intermediates, chemical products, fertilizers, feed, etc.

2. Overview of the production process

General-purpose processing

| | |
|---|--|
| Process | Device name, characteristics, etc. |
| Extraction | Batch system/organic solvent, water |
| Filtration, solid-liquid separation | Centrifuge, filter press, sparkler |
| Heating, distillation, concentration | Simple distillation, vacuum distillation |
| Cooling, refrigeration, crystallization | -10 °C to room temperature |
| Column purification | Silica gel, ion exchange resin, and others |
| Mixing, emulsified dispersion | Various tanks with stirrers attached, high-speed stirrer type homogenizers |
| Drying | Spray dryer, shelf-type hot air/vacuum dryer, vacuum tumble dryer, vacuum freeze dryer |
| Crushing, classification | Feather mill |
| Mixing, granulation | V blender |
| Subdivision, filling | Liquid, powder/ 5 kg~/ cans, cubitainers, drums etc. |

General oil extraction refinement

| |
|--|
| Solvent extraction, degumming, deoxidation, decolorization, deodorization, wintering |
|--|

3. Features of Oryza's Contract Manufacturing production

Not only cold and hot water, but a wide variety of organic solvents can also be used.

n-hexane (food additive), fermented ethanol (99 %, 95 %), methanol etc.

24-hour production is possible.

Boiler, utilities such as electricity, shift personnel

From small-scale to mass production

From laboratory scale test production to 5-ton level production

Processing and integrated production other than the above are possible using the networks of partner companies.

Spray dryer, freeze dryer, tablets, capsules, cans, portions, cheer pack filling, etc.

4. Contract Manufacturing processing system

Centered around the Production Technical Development Team, we quickly carry out processes toward actual production using an integrated system.

Receive request → Flow investigation → Lab scale test → Check quality →
→ Create prototype → Actual production

5. Convenient access

By car : Approximately 30 minutes from Meishin Ichinomiya IC, approximately 10 minutes from Tokai Hokuriku Expressway Kisogawa IC

By train : Approximately 15 minutes on foot from JR Kisogawa station

Approximately 10 minutes on foot from Meitetsu Kuroda station

Other : Nagoya Port, Chubu International Airport, Komaki Airport

6. Production equipment list (There is related equipment other than the list below.)

| Device name | Material | Specifications |
|---|----------------------|--|
| Reaction tank with stirrer | SUS | With jacket 200-7000 L To 120 °C |
| Reaction tank with stirrer | GL | With jacket 3000 L |
| Extraction tank | SUS | With jacket 2000 L 4 units, 3000 L 1 unit, others |
| Emulsifier | SUS | 50 L, 300 L Max revolutions 4300 rpm, high-pressure emulsifier |
| Basket-type centrifugal device | SUS, RUBBER | Upper drain type 42 to 54-inch Various filters 3 units Lower drain type 1 unit |
| Filter press, sparkler | SUS, CAST IRON | Filter chamber capacity 50 L to 200 L, all stainless steel available |
| Column centrifuge device (column tower) | SUS | 50 L 2 units, 500 L 1 unit Support silica gel, ion exchange resin, etc. |
| Spray dryer | SUS | Moisture evaporation 25 kg/Hr, dry powder quantity Approx. 5 kg/Hr |
| Freeze dryer machine | SUS | Condensation quantity 80 kg/Batch, dry powder quantity 24 kg/Batch |
| Vacuum tumble dryer | SUS | 1000 L, heating/cooling enabled, vacuum level 10 torr |
| Shelf type hot air dryer | SUS (SS) | Counterflow type, parallel flow type, steam sterilization type 250 to 900 L 3 units |
| Shelf type vacuum dryer | SUS | 190 L 1 unit, 470 L 2 units, vacuum level 5 torr 1 unit |
| Grinder | SUS | Feather mill 3 units, cutter mill 2 units |
| Powder mixing machine | SUS | V blender |
| Deodorizing plant | SUS | Versatile batch system, consecutive processing system, pure water vapor blowing device |
| Wintering room | SUS | 0 to 10 °C, filter equipment built in |
| Concentrator | SUS | With jacket 200 to 5000 L, defoaming concentrator |

Feel free to consult with us on any matter.

Please contact us initially by telephone, FAX, or email.

Guide to Oryza Oil & Fat Chemical Co. Ltd.

Oryza Oil & Fat Chemical Co. Ltd, based on the concept of “contributing to the health and beauty of people”, is engaged in R&D focusing on lifestyle-related diseases, aging, and cosmetic fields, from the position of preventive medicine and anti-aging.

We are preparing various types of functional food ingredients, using a large amount of food product information. Please feel free to consult us regarding all matters from product planning to OEM production.

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Please make use of the Oryza Oil & Fat Chemical Co. Ltd website

“Contents only for WEB members” are available on the Oryza website.

If you register as a member, you can download the complete Oryza product catalog (in Japanese) .We hope you can make use of this.



English

中文

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