





























































**Profile** 









































## Revised Content of Ver.12

#### New Product

SAKURA LACTIC ACID BACTERIA (SAKULORA™)

P.52

## ■New Patent (In Japan):

P.88

- MAQUIBERRY EXTTRACT: No.7530200 Redness improving agent on the skin
- PURPLE TEA EXTRACT: No.7489216 NO production promoter, explosive power improver for lower limb muscles, and agent for reducing muscle damage caused by intensive exercise

## ■New papers:

#### • STRAWBERRY GUAVA EXTRACT (Femberry™)

Yoneda A., Takeda S., Miyasaka K., Manse Y., Morikawa T., Shimoda H. Epidermal and Blood Vessel Barrier Functions of Glucosylceramides and Digalactosyldiacylglycerols Isolated from Yellow Strawberry Guava. PROCESSES. 12(7),1421(2024)

#### VINE TEA EXTRACT (ResoVine™)

Takara T.,Suzuki N.,Yamamoto K., Iio S., Kakinuma T., Baba A., Noguchi H., Shimizu N., Yamada W., Wu J., Hirano M., Kuang X., Nagata M., Shimoda H. Hypolipidimic Effects of Resovine<sup>TM</sup> Standardizes with Amplepsin on Posyprandial Serum Triglycerides in Healthy Japanese Participants. Japanese Pharmacology and Therapeutics. 52(5),637-43(2024)

#### MAQUIBERRY EXTRACT

Yamazaki K., Ishida K., Otsu W., Muramatsu A., Nakamura S., Yamada W., Tsusaki H., Shimoda H., Hara H., Shiazawa M. Delphinidins from maqui berry (Aristrotelia chilensis) ameliorate the subcellular organelle damage induced by blue light exposure in murine photoreceptor-derived cells. BMC Complement.Med. Ther. 24(1),3(2024)



## ■New specification added:

- ORYZA CERAMIDE-WSP1 (Glucosylceramide 1.0 %)
- KIKU FLOWER EXTRACT-WSP10 (Luteolin 10.0 %)

Revised date: October 18, 2024



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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

Application for food with function claims accepted in Japan

Recommended dosage

(Released in May 2014)

100 mg/day (P)

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



· 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 (canthine oxidase) (in vitro)
- •Improves symptoms of gout
- Suppresses uric acid production (in vitro)
- •Improves quality of sleep (in vivo)
- •Anti-wrinkle and skin beautifying effect (in viva)

#### [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

#### -P (powder)🍱

-WSP (water-soluble powder)

#### Packing type

The basic packing is described below.

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

Powder: 1 kg, 5 kgLiquid 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)

		Life	style-	-relate	d disea	ises		lergie lammat			Beauty	7
Appeal point Product name	nt	Antihypertensive	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
FERMENTED RICE GERM EXTRACT	P. 25											
FERULIC ACID	P. 25	$\circ$		$\circ$						0	$\circ$	
GAMMA ORYZANOL ORYZA GAMMAX <sup>®</sup> (USA)	P. 27		0	0	0		0		$\circ$	UV absorption (down) Tyrosinase activitity	0	0
OCTACOSANOL	P. 38				(up) Lipid metabolism	0						
ORYZA CERAMIDE <sup>TM</sup>	P. 39						Decrease itching Inhibition of degranulation			(down) Melanin production and tyrosinase activity	0	(up) Dermal fibroblast growth
ORYZA GABA <sup>TM</sup>	P. 40	0	$\circ$		(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 <sup>TM</sup>	P. 41		0		0		0		0			0
ORYZA PROTEIN <sup>TM</sup>	P. 41		$\circ$		(up)Lipid metabolism							
ORYZA STEROL	P. 42		0								0	
ORYZA TOCOTRIENOL <sup>TM</sup>	P. 42		$\circ$		(down) Blood TG		0			Anti- pigmentation	(up) hyaluronic acid production	(up) Dermal fibroblast growth
PURPLE RICE EXTRACT	P. 46		0	(down) α - glucosidase, aldose reductase activities	(down) Sugar absorption				0	(down) Melanin production and tyrosinase activity	(down)Elastase, hyaluronidase, collagenase activities	
RED RICE EXTRACT	P. 48		0								(down) Collagenase expression	
RICE BRAN OIL	P. 73		0		0					0	0	
DEFATTED RICE BRAN*	P. 74				0							

XORYZA DRIM, ORYZA GERM−DLP, −DLS

 $\bigcirc$  : literature citation Narration: data obtained by Oryza R&D group. (The Red:New datas)

	Bea	uty			An	ti-agi	ing				Other:	S	
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 proliferat ion	(up)Phagocyotic capacity of macrophages	SOD-like and DPPH radical scavenging acbilities					
					0	0		0					
								Suppression of oil peroxidation	$\circ$	$\circ$	$\circ$		
					0		0						(up) Endurance
$\circ$						(up)Apoptosis /prevention of colon cancer	Anti- influenza effect(BSG) Immunostimulation			$\bigcirc$			
					0	Prevention of colon cancer			0	0	0	0	
								SOD-like activity					Liver- protective effect
		$\circ$					Autophagy	$\circ$					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		0	0				Anti- fatigue
			Hair dye	Inhibition of retinal disorders/Retinal angiogenesis				SOD-like and DPPH radical scavenging acbilities					(down) Vitamin C oxidation
						0		SOD-like and DPPH radical scavenging acbilities					(down) TG
			Skin cell activation					0		0			
						$\circ$							Relief constipation

# PRODUCTS from OTHER PLANT SOURCES(1)

		Life	e style-	-relate	d disea	ıses	Al Inf	lergie lammat	es• zion		Beauty	<i>I</i>
Appeal poir Product name	nt	Antihypertensive	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		$\circ$									
ALPHA-LIPOIC ACID	P. 16				(down) Fat accumulation, appetite (up) Muscle strengthening					(down) Melanin production		(up) Dermal fibroblast growth
ASTAXANTHIN	P. 17		0								$\circ$	
BIRD'S NEST EXTRACT	P. 18								0		Moisturizing effect	(up) Dermal keratinocyte / fibroblast growth
BLACK GINGER EXTRACT Staminus <sup>®</sup> (USA)	P. 19	Blood pressure -lowering effect	0	0	0		0	$\circ$	0			
BROCCOLI SPROUT EXTRACT	P. 20									(down) Melanin production/ Tyrosinase activity		
BUCKWHEAT LEAF EXTRACT	P. 20	0	0	0	(up) Lipid metabolism							
COCOA EXTRACT	P. 21	0	0		(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	0	Suppression of cholesterol		(up) Lipid metabolism	0				(down) Tyrosinase activity	(down) Elastase, hyaluronidase activities	
CITRUS UNSHIU EXTRACT	P. 22		0		0			$\bigcirc$		(down) Melanin production/ Tyrosinase activity	0	(up) Dermal fibroblast growth
COFFEE BEAN EXTRACT	P. 23	0		(down) α -glucosidase activities and sugar absorption	(down)Fat absorption (up)Lipolysis, fat decemposition							
COPRINO <sup>TM</sup> EXTRACT	P. 23								(down) IL-6 production	(down) Melanin production/ Tyrosinase activity		(up) Hyaluronan synthase
EVENING PRIMROSE EXTRACT	P. 24		0	(down) α -glucosidase, α -amylase, aldose reductase activities	(down) Sugar absorption					(down) Tyrosinase activity	0	
EVENING PRIMROSE OIL	P. 24		(up) Cholesterol ester production	0	0		Implrovement of GLA deficiency				0	
FUCOXANTHIN	P. 26			0	0					(down) Tyrosinase activity/ Melanogenesis related genes expressions	(down) Elastase, collagenase, hyaluronidase activities	

 $\bigcirc$  : literature citation Narration: data obtained by Oryza R&D group. (The Red:New datas)

	Bea	uty			An	ti-agi	.ng			(	Others	S	
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
								$\circ$	$\circ$				Female hormone like activity, Anti-androgen effect
			(up) Skin turnover	$\circ$				<i>In vivo</i> antioxidant					
$\circ$				$\circ$	(down) Generation of ROS in brain cells			$\circ$				Anti- <i>H.pylori</i>	
(up) Skin elasticity, Dermal collagen density			(up) Skin tight junction		$\circ$		$\circ$				$\circ$		
			(up) Hair growth HGF, IGF-1, VEGF mRNA		Inhibition of phosphodiest erase 2 activity	$\circ$	$\bigcirc$	SOD-like and DPPH radical scavenging acbilities	Promotion of blood peripheral circulation Improvement of capillary blood vessel shape			$\circ$	Improvement of gout/Prevention of BPH/ Prevention of hair loss
		0		$\bigcirc$		(up) Phase <b>II</b> enzymes		<i>In vivo</i> antioxidant				Anti-H.pylori	
								SOD-like and DPPH radical scavenging acbilities	(up) Peripheral circulation				
								SOD-like and DPPH radical scavenging acbilities	0				
							(up) Testosterone secretion/ Immunity	$\circ$			Improvement of physical and mental fatigue		(up) Endurance Detoxification
Anti-photo aging			(up) Hair growth	(up) Human neuroblast growth		(up) Testosterone secretion		SOD-like and DPPH radical scavenging acbilities	Cerebral or myocardial infarction	0			(up) Endurance
						$\circ$		SOD-like and DPPH radical scavenging acbilities					Inhibition of osteoporosis
				$\circ$		Prevention of colon cancer		SOD-like and DPPH radical scavenging acbilities					
Anti-photo aging													
						(up) Apoptosis		SOD-like and DPPH radical scavenging acbilities		0		Inhibition of H. pylori fixation and urease activities Deodorization	
								0		Implovement of GLA deficiency			
(up) Collagen production	(down) Lipase activity	(down) AGE formation				Colorectal cancer		SOD-like and DPPH radical scavenging acbilities			_		Inhibition of osteoporosis

## PRODUCTS from OTHER PLANT SOURCES (2)

		Life	e style	-relate	d disea	ıses		lergie lammat			Beauty	т
Appeal poir	nt	Antihypertensive	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
FucoRex <sup>TM</sup>	P. 26			0	Inhibition of fat accumulation and gain weight					(down) Tyrosinase activity Melanogenesis related genes expresiion	(down) Elastese, collagenase, hyaluronidase activities	
JAPANESE BUTTERBUR EXTRACT	P. 28	Vaso dilatation					(down) Leukotriene, histamine release and TNF- α production					
KIKU FLOWER EXTRACT	P. 29		0		$\circ$	$\circ$	Improvement of itching in the eyes	Anti-gout. Inhibition of XOD,Uric acid excretive effect	$\circ$	0		
KIWI SEED EXTRACT	P. 30								(down) PG- production	(down) Melanin production /Tyrosinase activity	Clinical test in human	
KRILL OIL (ISADA OIL)	P. 31	0	0		Inhibition of fat accumulation and gain weight (PPAR activation)			0				
KUZU LACTIC ACID BACTERIA(ImmnoRise Lactic Acid Bacteria <sup>TM</sup> )	P. 32											
KUZU LACTIC ACID BACTERIA(SkinBarrier Lactic Acid Bacteria <sup>TM</sup> )	P. 32										(up)Collage n,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)Hyaluro nidase activity (up)Collagen production	(up) Dermal fibroblast growth
LUTEIN	P. 34											
MAQUI BERRY EXTRACT MaquiBright <sup>TM</sup>	P. 35											
MAQUI BERRY EXTRACT Delphinol <sup>TM</sup>	P. 36		0	$\circ$					0	(down) Melanin production		
MOUNTAIN CAVIAR EXTRACT (VegCaviar™)	P. 37				Lower Blood Sugar Level After Meals	0						
PASSIONFLOWER EXTRACT	P. 43			0								
PERILLA SEED EXTRACT	P. 44						(down) 5 and 12- lipoxygenase/ hisitamine release		0		0	
PERILLA SEED OIL	P. 44 - P. 45		0		0		(down) Leukotriene and histamine prodution				0	

 $\bigcirc$  : literature citation Narration: data obtained by Oryza R&D group. (The Red:New datas)

	Bea	uty			Anti-aging						Others	5	
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				0		SOD-like and DPPH radical scavenging abilities					Inhibition of osteoporosis
				0				0					
Expression of Fillagrin, Type IV collagen		$\circ$		$\circ$	$\circ$	$\circ$		$\circ$	$\circ$			$\circ$	Anti-oxidation, Cardioprotective, Neuroprotective
(up) Dermal fibroblast growth	(down) $5 \alpha$ -reductase /Lipase activities		(up) Dermal fibroblast growth /Anti-under eye darkness					SOD-like and DPPH radical scavenging abilities					
					$\bigcirc$			$\circ$	$\circ$				
							0						
							(UP)saliva IgA						
		0						0	Thermography				Prevention of urinary tract infection
(down) Elastase, collagenase activities						(up) Apoptosis		SOD -like and DPPH radical scavenging abilities <i>In vivo</i> antioxidant		0			
				Prevention of AMD		0		0					
				Anti-dry eye effect Inhibition of retinal photo-damage				0					
Anti-photo aging		Suppresses AGEs production, AGEs degradative effec	(up)Hair growth,Cosme tical effect					0					Inhibition of osteoporosis
							0				Improvement of circadian rhythm, Improvement of quality of sleep		Enhance activity in daytime
								SOD -like activity		0		Anti-cariogenic bacterium Anti-periodontal bacterium Deodorization	

# PRODUCTS from OTHER PLANT SOURCES (3)

		Life	e style-	-relate	d disea	ases		lergie lammat			Beauty	<i>T</i>
Appeal poi	int	Antihypertensive	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
POLYAMINE (from wheat germ)	P. 45		0		0		0		0			0
PSORALEA CORYLIFOLIA FRUIT EXTRACT	P. 46								0		(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 <sup>TM</sup> (USA)	P. 47											
RED GINGER EXTRACT	P. 48			0	0	0		anti- arthropathia pain relief	0			
RESVERATROL	P. 49	0	0	0	Suppression of adipocyte differentiation		0		0	(down) Melanin production	(down) Elastase, collagenase,hyalur onidase 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
SAKURA LACTIC ACID BACTERIA SAKULORA™	P. 52								Intestinal IgA production enhancement			
SEABERRY EXTRACT	P. 53										Inhibition of dryness stimulation	$\circ$
SEABERRY OIL	P. 53		$\circ$	0	0					$\circ$		
SICHUAN PEPPER OIL	P. 54											
STRAWBERRY GUAVA EXTRACT (FemBerry™)	P. 55										Skin moisture TEWL improvement	
STRAWBERRY SEED EXTRACT	P. 56			(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 EXTRACT LycoLift™	P. 57		0						Suppression of IgE secretion Improvement of cytokine balance		Improvement of TEWL	(up)Metabolism of extracellular matrix in skin
VINE TEA EXTRACT ResoVine™	P. 58				Suppresses fat absorption&fat accumulation, Promotes fat metabolism	Protects liver						

 $\bigcirc$  : literature citation Narration: data obtained by Oryza R&D group. (The Red:New datas)

	Bea	uty			An	ti-agi	ing				Other:	S	
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
		0	(up) Keratin production				Autophagy	0					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
0					(down) Generation of ROS in brain cells				0				
	Anti-acne					0	0	SOD-like and DPPH radical scavenging abilities	Cardiopathy	0			Protection of nerve cell
					0						0	0	hepato- protective
(up) Collagen lattice production		(down)AGE formation/ apoptosis,AGEs degradative effect	Hair care	Inhibition of retinal angiogenesis				0					
Collagen, hyaluronic acid synthase gene expression promotion							IL-10, 12 production promotion						Bowel movement improvement, intestinal serotonin and equol production improvement, EMT (cause of menstrual discomfort symptoms) inhibition
		Maintain skin elasticity,improve glycation stress	Inhibition of skin irritation from air pollutants					Elimination of DPPH free radical					Improvement of BPH and urinary disturbance Inhibition of overactive bladder,
													Improvement of benign prostatic hyperplasia
												Inhibition of S.mutans and P.gingivalis	
			Hair growth						Platelet aggregation inhibition Promotion of body temperature recovery Swelling improvement Blood flow improvement				
(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								0					

# PRODUCTS from OTHER PLANT SOURCES (4)

		Life	e style-	-relate	d disea	ises		lergie lammat			Beauty	Ţ
Appeal poir Product name	nt	Antihypertensive	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
WALNUT POLYPHENOL	P. 59	0	$\bigcirc$	0	$\bigcirc$	Suppression of fatty liver Hepatoprotection				(down) Melanin production		
WATERSHIELD EXTRACT	P. 60		(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. 61		$\bigcirc$	(up) Glycolytic activity	(down)Fat absorption and accumulation/App etite						Moisturizing effect	
YUZU SEED EXTRACT	P. 62		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)

		uty				ti-agi	ing				Others	5	
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
				0		0		$\circ$					Inhibition of osteoporosis
(up) Collagen/ Hyaluronan synthase													Intestinal motility
					0			SOD-like and DPPH radical scavenging abilities					Relief enhance constipation Intestinal motility Protection of gastric mucosa
			(up) Skin turnover			$\overline{\bigcirc}$			Thermography		Anti-stress		



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

## AGUAJE EXTRACT

(Released in May 2018)

Recommended dosage

100 mg/day (oil)

Japanese Patent No. 6742537 (Estrogen activity regulation and indefinite complaints ameliorative agent)



- -Extract (oil)
- -P (powder)
- -L (emulsion)
- -Powder

(post-ordered production)

#### •Relieves PMS and improves bust size

(Double-blind comparative study between para llel groups)

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).

#### ·Improves women's QOL

(Open test)

Significantly reduced body pains, increased vitality, and improved QOL in both social and mental aspects.

- Estrogenic effect (in vitro)
- Anti-estrogenic effect (in vitro)
- Anti-androgen effect(in vitro)

#### [Origin of raw material]

Fruits of aguaje

### [Standard component]

DMM (Dihydroxy-Methoxy-Methylflavan)

#### [Safety test]

(Aguaje extract)

·Single-dose test

LD50: 2,000 mg/kg or more

· Ames test

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

#### ALPHA-LIPOIC ACID

(Released in October 2004)

Recommended dosage

50 to 100 mg/day (P)

#### Japanese Patent No. 4849792 (Composition for beauty enhancement)



- -P (powder)
- -P80 (powder)
- -WSP7(water-soluble Powder)
- -L1 (emulsion)

#### ·Weight management effect

(Open test)

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.

·Increases muscle weight

(in vitro, in vivo)

- Suppresses fat accumulation (in vitro)
- ·Suppresses pigmentation

(in vivo)

- Antioxidative action (in vitro)
- ·Prevents weight increase

(in vivo)

- Promotes lipid metabolism (in vitro)
- Promotes skin turnover (in vitro)

#### [Origin of raw material]

Alpha lipoic acid

## [Standard component]

Alpha lipoic acid

#### [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



## <An amazing anti-oxidative power from algae>

### **ASTAXANTHIN**

(Released in May 2006)

• Prevents eye fatigue (Double-blind comparative study between parallel groups, from literature)

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

(Single-blind study between parallel groups, from literature)

It is assumed that the effects are provided by the action to eliminate singlet oxygen species caused by UV-rays.

Improves brain functions

(in vivo

- Antioxidative effect (in vivo)
- Suppresses arteriosclerosis

(in vitro)

•Anti-inflammatory effect (in vivo)

Recommended dosage

400 to 600 mg/day (P1)

[Origin of raw material]

Haematococcus pluvialis

[Standard component]
ASTAXANTHIN

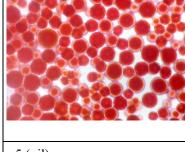
[Safety test]

(-20 oil)

·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) • Regenerates skin (Open study) [Origin of raw material] It reduced moisture evaporation from the Swiftlet nest skin and reduced peeling of dead skin cells off. [Standard component] It also exhibited a tendency to Sialic acid increase skin elasticity and dermal collagen density. [Safety test] •Increases skin cell growth (in vitro) (Bird's nest extract) • Wound healing activity (in vitro) ·Single-dose test ·Strengthens tight junctions of the skin (in vitro) LD50: 2,000 mg/kg or more -P (water-soluble powder) • Anti-flu effect (in vitro) ·Ames test



# <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)

- 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)



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

# •Effect of improving motor functions and muscle endurance capacity

(Double-blind comparative study between parallel groups)

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

(Open study)

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 (in vitro)
- Anti-obesity and anti-diabetec activity (in vivo)
- Promotes nitric oxide production in vascular endothelial cells (in vitro)

#### [Origin of raw material]

Rhizonme of black ginger

#### [Standard component]

Total polymethoxyflavones 5,7-Dimethoxyflavone

#### [Safety test]

(Black ginger extract)

- •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



## <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

Recommended dosage

(Released in September 2001)

185 mg/day (EX)

- Japanese Patent No. 5571280 (Sebum production promoter)
- Japanese Patent No. 6902392 (Carbonylation inhibitor)



· In vivo antioxidative action

(Double-blind comparative study between parallel groups)

Three-week ingestion of the extract exhibited an effect of suppressing DNA damage caused by active oxygen and lipids oxidation in the body.

- •Anti-carbonylation effect (in vitro)
- ·Suppresses colorectal

cancer (in vivo)

·Suppresses breast cancer

(in vivo)

- •Anti-H. pylori activity (in vivo)
- Inhibits tyrosinase activity (in vitro)
- ·Suppresses melanin production

(in vitro)

#### [Origin of raw material]

Germinated broccoli

Broccoli seeds(only -EX)

#### [Standard component]

Sulforaphane

#### [Safety test]

(Broccoli sprout extract)

·Single-dose test

LD50: 5,000 mg/kg or more

(Broccoli sprout extract-EX)

·Ames test

-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!</p>
Effective on blood circulation cold condition and stiff shoulders! >

#### BUCKWHEAT LEAF EXTRACT

(Released in May 2003)

Recommended dosage

240 to 600 mg/day (P)



-P (powder)

-WSP (water-soluble powder)

#### Improves blood circulation

(Open test)

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).

- Antioxidative action (in vitro)
- Diabetes prevention (in vivo)

#### [Origin of raw material]

Leaf of buckwheat or Fagopyrum tataricum, Polygonaceae

#### [Standard component]

Rutin

#### [Safety test]

(P)

·Single-dose test

LD50: 5,000 mg/kg or more



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

## **COCOA EXTRACT**

(Released in April 2005)

Recommended dosage

100 to 250 mg/day (P)



-P (powder)



-WSP

(water-soluble powder)

#### ·Suppresses fat accumulation

(Open test)

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 (in vivo)
- •Inhibits fat accumulation (in vitro)
- Promotes fat burning

(in vitro)

- Interferes with fat absorption
- Antioxidative effect (in vitro)

#### [Origin of raw material]

Cocoa seed

#### [Standard component]

Theobromine, polyphenol

#### [Safety test]

(-P)

·Single-dose test

LD50: 2,000 mg/kg or more

- •Repeated dose (28 days) test
- ·Chromosomal aberration test

## < A major stamina-enhancing ingredient!

For revitalizing, anti-fatigue, and anti-stress measures! >

## CHINESE CHIVE SEED EXTRACT

(Released in September 2006)

Recommended dosage

100 mg/day (P, WSP)

#### • Japanese Patent No. 4925761 (Immunostimulator) (Expiration of validity period)



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

(post-ordered production)

#### · Anti-fatigue

(Open study)

Slight decrease in lactic acid, a slight rise in noradrenaline, and a significant decrease in cortisol have been observed.

- •Enhances sexual capacity (in vivo)
- Reduces mental fatigue (in vivo)
- Reduces physical fatigue (in vivo)
- Anti-aging (in vivo)
- ·Boosts immunity

(in vivo)

• Whitening effect (in vitro)

#### [Origin of raw material]

Allium Tuberosum seed

#### [Standard component]

S-allyl-L-cysteine

#### [Safety test]

(Allium Tuberosum seed extract)

·Single-dose test

LD50: 2,000 mg/kg or more

· Ames test



## <a href="#"><Anti-aging for the entire body!</a>

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

#### CISTANCHE TUBULOSA EXTRACT

(Released in May 2007)

Recommended dosage

100 to 400 mg/day



-P25 (water-soluble powder)

#### Improves brain functions

(Double-blind comparative study between parallel groups)

It has been confirmed to have an effect on vascular dementia.

- Improves the capabilities to acquire and store memories (in vivo)
- Prevents death of brain neurons (in vitro)
- Protects nerve cells (in vitro)
- Anti-aging (in vivo)
- ·Prevents skin aging

(in vitro, in vivo)

- Anti-fatigue (in vivo)
- •Enhances sexual capacity (in vivo)
- Boosts immunity (in vivo)
- Promote a lipid metabolism (in vivo)

#### [Origin of raw material]

Cistanche Tubulosa

### [Standard component]

Echinacoside, acteoside, phenylethanoid glycoside

#### [Safety test]

(Cistanche Tubulosa extract)

·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

## <To combat the aging of women!

Ingredient for prevention of osteoporosis and whitening>

#### CITRUS UNSHIU EXTRACT

(Released in October 2004)

Recommended dosage

200 to 500 mg/day (P)



-P (powder)

-L (emulsion)

Prevents osteoprosis

(in vivo)

- Suppresses osteoclast differentiation (in vitro)
- Tyrosinase inhibition (in vitro)
- Suppresses melanin production (in vivo)
- Prevents pigmentation

(in vivo

- Antioxidative effect (in vitro)
- Fibroblast proliferation (in vitro)

#### [Origin of raw material]

Citrus unshiu peel

## [Standard component]

β-cryptoxanthin

Hesperidin

#### [Safety test]

(-P)

·Single-dose test

LD50: 5,000 mg/kg or more

(Citrus unshiu extract)

· Ames test



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

#### **COFFEE BEAN EXTRACT**

Application for food with function claims accepted in Japan

Recommended dosage

(Released in October 2003)

300 or 450 mg/day(WSP)

- 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 (water-soluble powder)



-WSP

(water-soluble powder)

#### ·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 descreasing as compared to baseline.

(Double-blind comparative study between parallel groups)

An eight-week ingestion test exhibited that the extract significantly improved the body weight, fat ratio, visceral fat, BMI, and arteriosclerotic index in subjects.

 Suppresses fat absorption, inhibits fat accumulation, promotes fat decomposition and fat burning

(in vitro, in vivo)

- Diabetes prevention (in vitro)
- Antioxidative effect (in vitro)

#### [Origin of raw material]

Coffee tree seed

#### [Standard component]

Chlorogenic acid, chlorogenic acids

#### [Safety test]

(Green coffee bean extract)

- ·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>

## COPRINOTM EXTRACT

(Released in October 2010)

Recommended dosage

10 to 30 mg/day (P0.5)



- -Powder
- -P0.5

(water-soluble powder)

Anti-photoaging effect

(in vitro, in vivo)

- Suppresses melanin production (in vitro)
- Tyrosinase inhibition (in vitro)
- Anti-inflammatory effect (in vitro)

#### [Origin of raw material]

Coprinus comatus

## [Standard component]

Ergothioneine

#### [Safety test]

(Coprinus comatus extract)

- ·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

(Released in September 2000)

100 to 300 mg/day (P)

- 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 (powder)

-WSPS (water-soluble powder)

-OIL

#### 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.

- Action to inhibit glycolytic enzyme (in vitro)
- Aldose reductase inhibition (in vitro)
- Suppresses increase of blood glucose levels (in vivo)
- Tyrosinase inhibition (in vitro)

#### [Origin of raw material]

Evening primrose seed

#### [Standard component]

Polyphenols

#### [Safety test]

(P)

·Single-dose test

LD50: 5,000 mg/kg or more

- ·Chromosomal aberration test
- · Ames test
- · Mouse micronucleus test

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

# EVENING PRIMROSE EXTRACT (Anti-H.pylori)

(Released in October 2003)

Recommended dosage

90 to 120 mg/day (P)

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



-PH (powder)

-WSPH

(water-soluble powder)

·Anti-H.pylori effect

(Open study)

It has been confirmed to reduce H.pylori in the stomach.

- Inhibits the growth of *H.pylori* (in vitro)
- Urease inhibition (in vitro)
- Suppresses attachment of *H.pylori* (in vitro)
- Suppresses *H.pylori* colonization (in vitro)
- Eliminates H.pylori (in vivo)
- Anti-tumoractivity (in vivo)

#### [Origin of raw material]

Evening primrose seed

#### [Standard component]

Polyphenol

[Safety test]

(PH)

- ·Single-dose test
- LD50: 5000 mg/kg or more
- ·Chromosomal aberration test
- · Ames test
- · Micronucleus test on mice



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

#### FERMENTED RICE GERM EXTRACT

(Released in September 2001)

Recommended dosage

200 to 500 mg/day (P)

- 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)



-P (powder) -WSP

(water-soluble powder)

• Immunostimulatory effect (in vitro)

• Prevents bacterial infections (in vitro)

- Prolyl endopeptidase inhibitory activity (in vitro)
- Promotes muscle formation (in vitro)
- ·Maintains muscle mass

(in vivo, in vitro)

[Origin of raw material]

Rice germ

[Standard component]

Polyphenol

[Safety test]

(-P)

·Single-dose test

LD50: 5,000 mg/kg or more

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

#### FERULIC ACID

(Released in March 1998)

Recommended dosage

• Japanese Patent No. 1371867( Oil-solubilized skin rub for ferulic acid ester )(Expiration of validity period)



 Prevents color degradation and discoloration of foods

(in vitro, in vivo)

- •whitening effect (in vivo)
- •Blood sugar lowering activity (in vivo)
- Blood pressure lowering activity (in vivo)
- •Improves brain functions (in vivo)

[Origin of raw material]

Rice seed

[Standard component]

Ferulic acid

[Safety test]

•Single-dose test

LD50: 857 mg/kg or more

·Ames test

-Ferulic Acid 🕦



#### <Prevent metabolic syndrome!</pre>

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

#### Application for food with function claims accepted in Japan **FUCOXANTHIN** Recommended dosage (Released in September 2008) 60 mg/day (5KW) **Japanese Patent No.7246965** (Sarcopenia obesity preventive/improving agent) Action to suppress fat [Origin of raw material] accumulation Japanese kelp or wakame (Double-blind comparative study seaweed belong to algaes between parallel groups) Four-week ingestion exhibited [Standard component] selective anti-obesity effect on visceral Fucoxanthin ·Increases the UCP-1 [Safety test] activity in brown adipocytes (Kelp extract) (in vivo) ·Single-dose test -5KW (oil) • Whitening effect (in vitro, in vivo) Anti-glycation activity (in vitro) LD50: 2,000 mg/kg or more -1KW (oil) • Antioxidative activity(in vitro) •90 days chronic toxicity test -P1KW (powder) Anti-acne activity (in vitro) · Micronucleus test -WSP0.1KW (water-soluble powder)

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

FucoRex <sup>TM</sup>	Applicati	on for food with function claims accepted in Japan
		Recommended dosage
(Released in May 2017)		100 mg/day (3)
-3 (oil)	<ul> <li>Suppresses visceral fat accumulation (in vivo)</li> <li>Hepatoprotective effect (in vivo)</li> <li>Skin beautifying activity (in vivo)</li> </ul>	[Origin of raw material]  Microalgae  [Standard component]  Fucoxanthin  [Safety test]  (Microalgae extract)  • Single-dose test  LD50: 1,000 mg/kg or more
-1 (oil)		·Ames test



## <"Rejuvenating vitamin" contained only in rice oil>

## GAMMA ORYZANOL ORYZA GAMMAX® (USA)

Recommended dosage

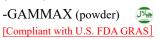
(Released in September 1982)

10 to 800 mg/day

#### • Japanese Patent No. 6639892 (γ-Oryzanol soluble liquid composition)



-Gamma-Oryzanol (Powder)



 Action to relieve postmenopausal disorders and dysautonomia
 (Multiple human clinical trials, from literature)

Cholesterol lowering effect

(Multiple human clinical trials, from literature)

· Muscle-building

(Double-blind comparative study between parallel groups, from literature)

- Antioxidative activity (in vitro)
- •Prevents irritable bowel syndrome (in vivo)
- Anti-allergic effect(in vivo)

#### [Origin of raw material]

Rice bran oil

#### [Standard component]

Gamma-Oryzanol

#### [Safety test]

·Single-dose test

LD50: 10,000mg/kg or more

- •180 days chronic toxicity test
- •90 days chronic toxicity test
- Teratogenicity test
- ·Carcinogenicity test



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

### JAPANESE BUTTERBUR EXTRACT

Recommended dosage

(Released in April 2004)

250 mg/day (P)

#### • Japanese Patent No. 4822246 (Anti-allergic agent)



-P (powder)

-WSP (water-soluble powder)

 Anti-allergic activity (helps hay fever)

(Open study)

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 (in vitro)
- Suppresses leukotrienes release (in vitro)
- Suppresses TNF-α production (in vitro)
- Anti-inflammatory effect (in vivo)
- Suppresses vascular and tracheal contractions

(in vitro)

### [Origin of raw material]

Aerial part of Japanese butterbur

#### [Standard component]

Total polyphenols

Total terpenoids

#### [Safety test]

(Japanese butterbur extract)

·Single-dose test

LD50: 2,000 mg/kg or more

•28 days chronic toxicity test



## <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

Recommended dosage

(Released in May 2014)

100 mg ~ 200mg/day (P, WSP10)

#### • Japanese patent No. 6452104 (Fibronectin expression promoting material)



- -P (powder)
- -WSP (water-soluble powder)
- -WSP10 (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,</p> and prevent dark pigmentation under the eyes>

#### KIWI SEED EXTRACT

(Released in September 2005)

Recommended dosage

50 to 100 mg/day (P)

- Japanese Patent No. 4925692 (Composition for skin improvement)
- Japanese Patent No. 5462430 (Anti-inflammatory agent and painkiller)





-P (powder) -WSP

(water-soluble powder)

-OIL

· Effect on sebum secretion (antiacne)(Open study)

Inhibited 5α-reductase that generates DHT which is related to sebaceous secretion and suppressed excessive secretion of sebum.

· Anti-wrinkle action

(Open study)

Effects observed included reduction of wrinkles, normalization of skin pH and skin condition.

· Action to prevent dark pigmentation under eyes

(Open study)

The extract was confirmed to increase the brightness of skin surface around the eyes, suggesting that it can prevent dark pigmentation under eyes.

•Inhibits C. acnes-derived lipase

(in vitro)

- Induces the proliferation of fibroblasts (in vitro)
- Tyrosinase inhibitory effect

(in vitro)

- ·Suppresses melanin production (in vitro)
- · Reduces pigmentation

• Anti-inflammatory effect (in vitro)

[Origin of raw material]

Kiwi seed

[Standard component]

Quercitrin

Polyphenols

[Safety test]

(Kiwi seed extract)

·Single-dose test

LD50: 2,000 mg/kg or more

·Ames test

(Oil)

·Single-dose test

LD50: 5,000mg/kg or more



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

## KRILL OIL(ISADA OIL)

(Released in May 2018)

#### Recommended dosage

210 mg/day (oil)



-OIL

## · Improving effect on dyslipidemia

(Single-blind comparative study between parallel groups)

It has been confirmed to improve blood LDL-cholesterol, triglycerides, and free fatty acids levels. As for body paraameters, it has been confirmed to reduce the body fat ratio, waist size, and hip size.

# • Improving effect in brain functions

(Double-blind comparative study between parallel groups, from literature) It has been confirmed to improve memory and the ability of simple calculation.

- Anti-obesity effect (in vivo)
- Improves the quality of sleep (in vivo)

#### [Origin of raw material]

Isada (Pacific Krill)

Euphausia pacifica

#### [Standard component]

8-HEPE

#### [Safety test]

(Isada oil)

·Single-dose test

LD50: 2,000 mg/kg or more

· Ames test



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

## **Kuzu Lactic Acid Bacteria**

(Released in November 2020)

#### Recommended dosage

50mg/day (P)





#### SkinBarrier Lactic Acid Bacteria<sup>™</sup>

· Skin care effect

(Double-blind comparative study between parallel groups)

It has been confirmed that the TEWL (cheek), saliva IgA, collagen score, and questionnaire (gloss, firmness, dryness) were improved.

• Moisturize the skin, improve barrier function (in vivo)

(Promote the protein expression of cornified envelope, improve TEWL)

#### [Origin of raw material]

Lactic Acid Bacteria (derived Kuzu)

#### **(Standard component)**

Bacteria No: 2×10<sup>12</sup>/g

#### **Safety test**

(SkinBarrier Lactic Acid Bacteria<sup>TM</sup>)

- · Ames test
- Human test50 mg/kg 6 weeks
- · Single-dose test

LD50: 2,000 mg/kg or more

-P (powder)

#### ImmnoRise Lactic Acid Bacteria<sup>™</sup>

• Reduce the risk of virus infection

(Parallel group comparison test)

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.

- Immune activation (produce IL-12) (in vitro)
- Reduce amount of influenza virus, increase the value of neutralizing antibody against virus (*in vivo*)



## <A berry from Northern Europe containing a whitening ingredient "Arbutin">

#### LINGONBERRY EXTRACT

(Released in April 2009)

Recommended dosage

50 to 100 mg/day (P0.5)

#### • Japanese Patent No. 5525716 (Pigmentation suppressor)



-J

(concentrated fruit juice)

- -PJ (water-soluble powder)
- -P0.5 (water-soluble powder)

Improves blood circulation

(Open test)

Single dose ingestion of the extract improved human skin temperature after loading hypothermic condition.

• Effect of suppression of melanin production

(in vitro, in vivo)

Tyrosinase inhibition

(in vitro)

• Prevents pigmentation (in vivo)

#### [Origin of raw material]

Lingonberry juice or fruit

#### [Standard component]

Arbutin

#### [Safety test]

(-P0.5)

·Single-dose test

LD50: 2,000 mg/kg or more

· Ames test

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

#### LITCHI SEED EXTRACT

(Released in November 2001)

Recommended dosage

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 (powder)

-WSP (water-soluble powder)

• Effects to beautify the skin (Open study)

It has been confirmed to improve the moisture and pH of the skin.

- Collagen production effect (in vitro)
- Collagenase inhibition (in vitro)
- Elastase inhibition (in vitro)
- •Hyaluronidase inhibition (in vitro)
- Antioxidative effect(in vitro)
- Whitening effect (in vitro, in vivo)
- · Diabetes prevention

(in vitro, in vivo)

## [Origin of raw material]

Litchi seed

#### [Standard component]

Polyphenols

#### [Safety test]

(Litchi seed extract)

- ·Single-dose test
- LD50: 5,000 mg/kg or more
- •28 days chronic toxicity test
- · Ames test
- ·Chromosomal aberration test



# <Prevent age-related Macular degeneration and Cataract.</p> High absorbable ingredient "lutein ester">

### LUTEIN

(Released in May 2002)

#### Application for food with function claims accepted in Japan

Recommended dosage

15 to 20 mg/day (P80)

50 or 100mg/day (20F)



-P80 (powder)

- -P40 (powder)
- -L8 (water-soluble emulsion, post-ordered production)
- -20F(oil)



(Multiple human clinical trials, from literature)

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.

#### [Origin of raw material]

Marigold flowers

## [Standard component]

lutein (ester), Total carotenoids (ester)

(Only -20F)

Lutein (free), Zeaxanthin (free)

#### [Safety test]

(-P80)

·Single-dose test

LD50: 5,000 mg/kg or more



#### <For the treatment of dry eyes:</pre>

### A wild berry from the Patagonian wilderness in South America>

## MAQUI BERRY EXTRACT

Application for food with function claims accepted in Japan

Recommended dosage

30~60 mg/day (P35)

(Released in May 2012) MaquiBright<sup>TM</sup>

- 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)
- Japanese Patent No.7530200 (Redness improving agent on the skin)



-P35 🕦

(water-soluble powder)

-J

(concentrate fruit juice)

MaquiBright<sup>®</sup>

# • 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 "bothersame 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 (in vitro)
- ·Improves dry eye

(in vitro, in vivo)

#### [Origin of raw material]

Maqui berry fruit

#### [Standard component]

Total anthocyanins

Total delphinidins

#### [Safety test]

(Maqui berry extract)

- ·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



### < Cosmetical effect:

## A wild berry from the Patagonian wilderness in South America>

## **MAQUI BERRY EXTRACT**

(Released in May 2012) **Delphinol**<sup>TM</sup>

Recommended dosage

60 mg/day (P35)

#### ● Japanese Patent No. 6144536 (Whitening agent)



-P35 (water-soluble powder)
-J (concentrate fruit juice)

## **Delphinol**

#### **Cosmetical effect**

(Double-blind comparative study between parallel groups)

Ameliorating effects on skin brightness and redness.

•Prevents metabolic syndrome

(Double-blind comparative study between parallel groups)
Blood glucose, hemoglobin A1c, and HDL-cholesterol levels were improved.

- •Promotes hair growth (in vitro)
- Suppresses aging of skin (in vitro)
- Suppresses AGEs production (in vitro)
- AGEs degradative effect(in vitro)
- Antioxidative effect (in vitro)
- ·Anti-inflammatory effect

(in vitro)

- Anti-diabetes effect(in vivo)
- Prevents arteriosclerosis (in vitro)
- Prevents osteoprosis

(in vivo)

#### [Origin of raw material]

Maqui berry fruit

#### [Standard component]

Total anthocyanins

Total delphinidins

#### [Safety test]

(Maqui berry extract)

- 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



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

#### **MOUNTAIN CAVIAR EXTRACT** VegCaviar<sub>™</sub>

**Recommended Dosage** 

200-400 mg/day (P)



(Released in October 2022)



-P (water-soluble powder)

·Lowers postprandial blood sugar

New! (Randomized, Double-blind, Placebo-controlled Crossover Trial) C<sub>max</sub> (maximum blood sugar level) after glucose intake was significantly reduced compared to the placebo. (Open test)

It could reduce the blood sugar level significantly 30 and 60 minutes after intake glucose compared to the placebo group.

- · Suppresses blood sugar level rise (delays sugariness absorption) (in vivo)
- ·Anti-obesity (in vivo)
- ·Antipruritic effect (in vivo)
- ·Suppresses TG absorption (in vivo)

# Origin of raw material

Fruits of *Kochia scoparia (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



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

# **OCTACOSANOL**

(Released in October 2000)

Recommended dosage

40 to 100 mg/day (P10)



- P1 (powder),- P8 (powder)
- P10 (powder)
- P12 (powder)
- P30 (powder)
- P45 (powder)
- P60 (powder)
- L0.5 ( emulsion )

# • Ability to generate energy and muscle growth

(Multiple human clinical trials, from literature)

The following effects have been confirmed.

- 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

### [Origin of raw material]

Seed of rice, Gramineae

#### [Standard component]

Octacosanol

#### [Safety test]

·Single-dose test

LD50: 2,000 mg/kg or more



## <Maintain moisture and boost barrier function! "Edible ceramide">

# ORYZA CERAMIDE<sup>TM</sup>

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 )



-PT (powder)

-PCD (powder)



-WSP

(water-soluble powder)

-WSP1

(water-soluble powder)

-L (emulsion)

-L0.8 (emulsion)



#### Moisturizing effect

(Double-blind comparative study between parallel groups)

It is expected to enhance skin barrier function and provide a moisturizing effect by reconstructing ceramides, promoting the formation of cornified and envelopes, enhancing function of tight junctions epidermis.

- · Skin beautifying effect (improve acne and skin condition) through the use with kiwi seed extract (Open study)
- · Improving cold symptoms and immunity score

(Double-blind comparative study between parallel groups)

- ·Barrier Enhancement (in vivo)
- Whitening effect (in vitro)
- Reduces symptoms of atopic dermatitis (in vivo)
- •Anti-influenza effect(BSG)(in vivo)

New! Immunostimulatory effect (in vitro)

#### [Origin of raw material]

Rice bran and rice germ

#### [Standard component]

Glycosphingolipids

#### [Safety test]

(Rice extract)

· Single-dose test

LD50: 5,000mg/kg or more

•28 days chronic toxicity test



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

# ORYZA GABA<sup>TM</sup>

(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

(Double-blind comparative study between parallel groups)

It has been confirmed to enhance parasympathetic nerve activities to ease tensions and provide a relaxing

·Suppresses blood pressure elevation

(Double-blind comparative study between parallel groups)

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.

[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

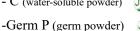
(-HC90)

· Ames test

-HC5 (water-soluble powder)

-HC90(water-soluble Powder)









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

# ORYZA PEPTIDE<sup>TM</sup>

(Released in September 2009)



Recommended dosage

500 to 1000 mg/day (P60)

• Japanese Patent No. 6811455 ( N-acetyltransferase activator )



Weight-controlling action

(Double-blind comparative study between parallel groups)

Combination of ingestion of a beverage containing 1 gram of Oryza light Peptide and exercise demonstrated weight loss, as and as subcutaneous fat reduction, while improving body shape.

Anti-obesity action (in vivo)

Whitening and beautifying

effects(in vitro, in vivo)

•Liver-protective effect(in vitro)

Antioxidative effect(in vitro)

[Origin of raw material]

Rice

[Standard component]

Peptides

[Safety test]

(-P60)

· Single-dose test

LD50: 5,000mg/kg or more

· Ames test

-P60

(water-soluble powder)



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

## ORYZA POLYAMINE<sup>TM</sup>

(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)



Improves nail conditions

(Double-blind comparative study between parallel groups)

It has been confirmed to improve the conditions of the nail by increasing the ceramide content in the nail and lo prevent moisture evaporation.

- Promotes hair growth (in vitro)
- Anti-glycation effect

(in vitro)

[Origin of raw material]

Rice germ

[Standard component]

Polyamine

[Safety test]

(Rice germ extract)

· 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<sup>TM</sup>

(Released in September 2009)



Recommended dosage

440 to 880 mg/day (P80)



-P80(powder)



- Prevents weight gain (in vivo)
- •Lowers cholesterol levels (in vivo)
- \*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 equivalent to or higher than the proteins mentioned above.

[Origin of raw material]

Rice

[Standard component]

Protein

[Safety test]

(-P70)

· Single-dose test

LD50: 2,000 mg/kg or more

· Melamine analysis

(not detected)



-P (powder)

-L (emulsion)

(post-ordered production)

(post-ordered production)

#### <100% rice-derived sterol>

### **ORYZA STEROL**

(Released in September 1999)

500 mg/day (P)

Recommended dosage



· Reduces blood cholesterol levels

(Single-blind crossover study, from literature)

Ingestion of  $\beta$ -sitosterol is expected to reduce the amount of dissolved cholesterol and suppressing cholesterol absorption from gut.

· Alleviates urinary disorders caused by benign prostatic hypertplasia

(Double-blind comparative study between parallel groups, from literature)

It has been confirmed to alleviate BPH and help improve the QOL of

·Blood triglyceride lowering effect (in vivo)

#### [Origin of raw material]

Rice bran and rice germ

#### [Standard component]

Sterol

#### [Safety test]

(-P)

· Single-dose test

LD50: 2,000 mg/kg or more

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

# ORYZA TOCOTRIENOL<sup>TM</sup>

(Released in September 1998)



Recommended dosage

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)



- Cholesterol reducing effect
- (Multiple human clinical trials, from literature)

It has been confirmed to act on liver cells to selectively lower LDLcholesterol level.

Improves Atherosclerosis

(Double-blind comparative study between parallel groups, from literature)

It has been confirmed to suppress platelet aggregation or inhibit vasoconstriction.

- Anti-cancer (in vivo)
- Antioxidative effect (in vivo)
- •hyaluronic acid production(in vivo)
- Suppresses pigmentation (in vivo)
- Activation of cells (in vitro)

# [Origin of raw material]

Rice bran and rice germ

#### [Standard component]

Total Tocopherol

**Total Tocotrienol** 

#### [Safety test]

- · Single-dose test
- LD50: 5,000mg/kg or more

- (oil)

-90 (oil)

-P15CD (powder)

<sup>-</sup>P27CD (powder) -L10 (water-soluble emulsion)

<sup>\*-</sup>Packaging size of Tocotrienol and -90: 15 kg is also available.



# <Improve the circadian rhythm!</p>

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

# PASSIONFLOWER EXTRACT

Application for food with function claims accepted in Japan

Recommended dosage
200 mg/day (P)

(Released in October 2016)

● Japanese Patent No. 6909569 (Skin care material)

● Japanese Patent No. 7007798 (Improving Life Rhythm)



-P (powder)

-WSP (water-soluble powder)

•Improves mental QOL and vitality

(Double-blind comparative study between parallel groups)

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(in vitro, in vivo)
- •Improves the quality of sleep

(in vivo)

• Antioxidative effect (in vitro)

# [Origin of raw material]

Aerial part of passion flower

#### [Standard component]

Total flavonoids

#### [Safety test]

(Passion flower extract)

- ·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



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

#### PERILLA SEED EXTRACT

(Released in September 1997)

(Anti-allergic)

Recommended dosage

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)



-P (powder)



 $\hbox{-}WSP \ (water-soluble \ powder)$ 

-L (liquid)

-OIL

## Selectively suppresses IgE

(Open study)

It has been confirmed to reduce allergic reactions by selectively suppressing IgE concentration which is directly involved in type allergies. No adverse effects to reduce the immune system were observed.

Action to reduce aging odor

(Open study)

An effect against elders person's smell (aldehyde odor) has been confirmed.

- ·Anti-allergic and antiinflammatory effects (in vivo)
- Inhibits 5-lipoxygenase and suppresses histamine release (in vitro)

#### [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

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

# PERILLA SEED EXTRACT (Oral care)

(Released in September 1999)

Recommended dosage

80 to 160 mg/day (PO)

#### ■ Japanese Patent No. 4112730 (Antibacterial agent for oral cavity ) (Expiration of validity period)



- -PO (powder)
- -LO (liquid)

 Antibacterial effect against dental cavity and periodontal disease

(in vitro)

- Antioxidative effect (in vitro)
- Anti-inflammatory effect (in vivo)
- · Deodorant effect against cigarette breath, bad breath, and sweat smell

(in vitro)

#### [Origin of raw material]

Perilla seed

#### [Standard component]

Polyphenols

#### [Safety test]

(-PO)

· Single-dose test

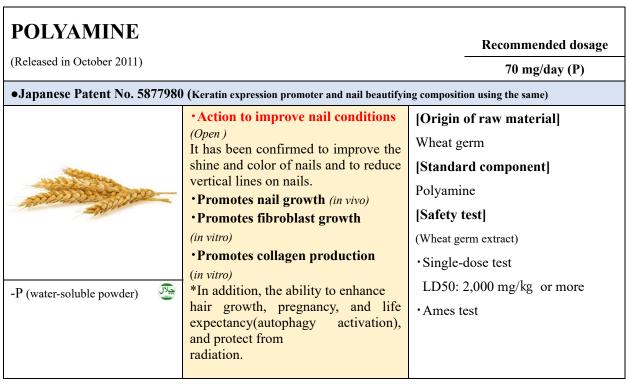
LD50: 2,000 mg/kg or more



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

# Application for food with function claims accepted in Japan PERILLA SEED OIL Recommended dosage LDL cholesterol: 10 g/day (Released in September 1997) High blood pressure: 5 g/day ·Lower LDL cholesterol Origin of raw material (Double-blind comparative study between Seed of Perilla frutescens parallel groups) **(Standard component)** Improved the level of LDL cholesterol α-Linolenic acid in healthy adult people. ·Lower high blood pressure (Double-blind comparative study between parallel groups) Lower the high blood pressure of - Oil healthy adult people.

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





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

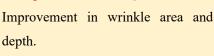
# PSORALEA CORYLIFOLIA FRUIT EXTRACT (PhytoRetinol<sup>TM</sup>)

Recommended dosage

35mg/day (oil)

(Released in November 2020)





• Improve Wrinkle (open test)

• suppress the atrophy of fibroblast induced by UV-A (in vitro)

• Contract the Collagen gel and increase protein of integrin 1 (in vitro)

• Promote mRNA expression of Fibrin 4 (*in vitro*)

• Promote protein expression of Laminin 5 (in vitro)

• Inhibit hyaluronidase (in vitro)

[Origin of raw material]

Fruits of Psoralea corylifolia

**(Standard component)** 

Bakuchiol

**Safety test** 

(PhytoRetinol<sup>TM</sup>)

·· Single-dose test LD50: 2,000 mg/kg or more

· Ames test

Phototoxicity test (rats)500mg / kg

• Phototoxicity test (fibroblast)



-3 (oil) -P1 (powder) -P1 (powd

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

# **PURPLE RICE EXTRACT**

(Released in September 2002)

Recommended dosage

200 to 400 mg/day (P)

• Japanese Patent No. 5916203 (ER stress reducer)



-P (water-soluble powder)

 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

(in vitro, in vivo)

- Inhibit s carbohydrate absorption (in vitro)
- Beautifying effect(in vitro)

[Origin of raw material]

Purple rice seed

[Standard component]

Polyphenols

Anthocyanins

[Safety test]

(Purple rice extract)

- ·Single-dose test
- LD50: 5,000 mg/kg or more
- •28 days chronic toxicity test
- · Ames test

<sup>\*</sup>Packaging size of -P:3 kg



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

# PURPLE TEA EXTRACT

(USA) PURPLE (FORCE (USA)

Recommended dosage

100 mg/day (P)

(Released in October 2013)

- Japanese Patent No. 6933781 (AMPK activator)
- Japanese Patent No. 6227851 (Circadian rhythm adjustment agent ) (Expiration of patent right)
- •US Patent No.11478495 (AMPK activator)
- Japanese Patent No.7489216 (NO production promoter, explosive power improver for lower limb muscles, and agent for reducing muscle damage caused by intensive exercise)



-P (powder)



-WSP (water-soluble powder)

# Weight controlling and beautifying effects

(Open study)

It has been confirmed to reduce the thickness of subcutaneous fat in the abdomen and upper arms. It lowered body fat LDLpercentage, 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 (in vitro)
- Antioxidative effect (in vitro)
- Whitening effect(in vitro)
- · Suppresses AGEs production

(in vitro)

- AGEs degradative effect(in vitro)
- · Activate AMPK in muscle cells (in vitro)

# PURPLE! FORCE

#### Beneficial effect for exercise

(Randomized double-blind comparative study between parallel groups)

The endurance ability of exercise in muscle of lower body was improved, of and the value 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(in vitro)

#### [Origin of raw material]

Purple tea leaf

#### [Standard component]

Total polyphenols

**GHG** 

#### [Safety test]

(Purple tea extract)

· Single-dose test

LD50: 2,000 mg/kg or more

· Ames test



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

### RED GINGER EXTRACT

(Released in May 2006)

Recommended dosage

15 to 20 mg/day (P)

- Japanese Patent No. 5303697 (Anti-inflammatory agent and painkiller)
- •US patent: 8017162 (Anti-inflammatory agent)



-P (powder)



-WSP (water-soluble powder)

#### Action to prevent arthritis

(Open study)

It has been confirmed to significantly reduce hyaluronic acid which is a blood inflammation parameter.

·Suppresses acute and chronic inflammation

(in vivo)

 Selectively inhibits COX-2 (in vivo)

Suppresses prostaglandin (PG) production (in vitro)

·Synergistic action with glucosamine (suppress Nitric Oxide **production)** (in vitro)

#### [Origin of raw material]

Red ginger rhizome

# [Standard component]

[6]-Gingerol and [6]-shogaol

**Tannins** 

#### [Safety test]

(Red ginger extract)

·Single-dose test LD50: 2,000 mg/kg or more

- · Ames test
- •28 days chronic toxicity test

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

# RED RICE EXTRACT

(Released in November 2007)

Recommended dosage

50 mg/day (P)



-P (powder)



-WSP (water-soluble powder)

#### Improves conditions of metabolic **syndrome**

(Open study)

It has been confirmed to lower cholesterol and triglyceride levels in people with hyperlipidemia.

- Antioxidative effect (in vitro)
- Improves conditions of hypertriglyceridaemia (in vivo)
- Improves conditions of hypercholesterolemia (in vivo)
- · Promotes lipid metabolism (in vitro)

#### [Origin of raw material]

Red rice

#### [Standard component]

Polyphenols

#### [Safety test]

(Red rice extract)

·Single-dose test

LD50: 1,000mg/kg or more

· Ames test

(-P)

·Intaking test in human 50 mg, 3 weeks



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

# RESVERATROL

(Released in September 2007)

### Recommended dosage

20 to 40 mg/day (P5)



Anti-metabolic syndrome effect

(Open study)

four-week ingestion RESVERATROL exhibited decrease in lipid and glucose levels. It also reduced oxidative stress.

·Anti-aging effect

(in vitro, in vivo)

- Anti-oxidative effect (in vitro)
- •Beautifying effect (in vitro)
- •Anti-P. acnes effect (in vitro)
- •Neuroprotective effect (in vivo)

#### [Origin of raw material]

Grape leaf, seed, skin

#### [Standard component]

Polyphenols

Trans-resveratrol

#### [Safety test]

(-P10 \*Test on products with a high resveratrol content)

·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>

#### Application for food with function claims accepted in Japan SAFFRON EXTRACT Safleep Recommended dosage ( Released in May 2023) 22 mg/day (P) · Sleep quality improvement **(Origin of raw material)** (Multiple human clinical trials) saffron stigmas It has been confirmed to have **(Standard component)** improving effects on sleep quality, Crocin [Safety test] maintaining effects motivation for things done. (P) Anxiolytic effect · Single-dose test ( Double-blind comparative study LD50: 2000 mg/kg or more -P (water-soluble powder) between parallel groups ) · Ames test Ingestion of saffron extract reduced anxiety symptoms. · Non REM sleep extension (in

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

vivo)

\*Owned by Daiichi University of Pharmacy



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

# SAKURA EXTRACT Florabella (USA)

(Released in April 2010)

**Recommended dosage** 

50 to 150 mg/day (P)

- 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)



-P (water-soluble powder)

-SYRUP

#### 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 (in vitro)
- AGEs degradative effect(in vitro)
- Produces collagen and forms matrices (in vitro)
- Suppress fibroblast apoptosis(in vitro)
- Suppress melanin production (in vitro)
- •Anti-inflammatory action (in vitro)

#### [Origin of raw material]

Cherry Blossom flower

#### [Standard component]

Caffeoyl glucose

Quercetin glucoside

#### [Safety test]

(Cherry Blossom flower extract)

- · Single-dose test
- LD50: 2,000 mg/kg or more
- •28 days chronic toxicity test
- •90 days chronic toxicity test
- · Ames test

<sup>\*</sup> Packaging size of -SYRUP: 20 kg



# (New Product)

<Lactic acid bacteria isolated from "Sakura"! Not only good for Gut regulation, but also expected to have beauty benefits.>

# Sakura Lactic acid bacteria (SAKULORA™)



Recommended dosage

50mg/day (P)

(Released in October 2024)



-P (powder)

-PD (powder)

Bowel movement improvement

(Single-blind, parallel-group comparative study)

After 2 weeks of intake, the amount of bowel movements and stool shape scores were significantly improved, and the number of bowel movements and the feeling of residual stool also improved.

- Immune activation (promotion of IL-10 and IL-12) function (in vitro)
- Enhancement of intestinal IgA production (in vivo)
- Enhancement of intestinal serotonin production (in vivo)
- · Promotion of collagen and hyaluronic acid synthase gene expression (in vitro)
  - Promotion of equol production
    (in vivo)
  - EMT inhibition (in vitro)

### [Origin of raw material]

Lactic acid bacteria (derived from cherry blossoms)

# **[Standard component]**

colony-forming units (CFU)

# [Safety test]

(P)

· Single-dose test

LD50: 2,000 mg/kg or more

· Ames test



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

# **SEABERRY EXTRACT**

(Released in May 2015)

Recommended dosage

200~400 mg/day (P)

#### Japanese Patent No.7237204 (5α-reductor inhibitor)



-P (powder)



-WSP

(water-soluble powder)

-FRUIT OIL 🌁



 Suppresses overactive bladder

(Double-blind comparative study between parallel groups)

Improved urinary problems suppressing the excessive contractions of bladder smooth muscles and relieving urinationrelated anxiety and urinary urgency.

 Suppresses prostatic hypertrophy

(Open study)

 Suppresses excessive contractions of the bladder

(in vitro, in vivo)

- •5α-reductase inhibition effect (Synergistic effect with Saw palmetto)(in vivo)
- ·Suppresses BPH

(in vivo)

- ·Relieves and reduces irritation by air pollutants and dryness (in vitro)
- Anti-oxidative action (in vitro)

#### [Origin of raw material]

Seaberry fruit

#### [Standard component]

Ursolic acid

#### [Safety test]

(Seaberry extract)

- ·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



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

# Sichuan Pepper Oil (SalivaMoist™) SalivaMoist™

Recommended dosage

(Released in November 2020)

50~100 mg/day (-P5)



• Promote saliva secretion

(Open test)

• Promote saliva secretion

(Compared intake of before and after by Saxon test)

It was confirmed that the amount of saliva was improved. The related symptoms of oral cavity were improved.

- Activate TRP channel (in vitro)
- •Anti-bacterial activity against *S.*mutans and *P. gingivalis (in vitro)*

# [Origin of raw material]

Sichuan pepper rind

# **[Standard component]**

Total hydroxy-sanshools

#### **Safety test**

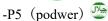
(Sichuan pepper Oil)

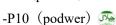
·Single-dose test

LD50: 1,000 mg or more

·Ames test









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

# STRAWBERRY GUAVA EXTRACT FemBerry

Recommended dosage

100mg/day (P)

(FemBerry<sup>TM</sup>)

(Released in October 2023)





-P (water-soluble powder)

• Platelet aggregation inhibition

(Placebo-controlled trial)

A single intake significantly reduced platelet aggregation rate.

• Body temperature recovery promotion

(Placebo-controlled trial)

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.

· Blood flow improvement

(Placebo-controlled trial)

When the finger peripheral blood flow velocity was measured 30 minutes after ingestion, an example of acceleration was observed.

• Swelling improvement

(Single-blind crossover study)

Six hours after ingestion, water retention in the legs tended to improve.

- Platelet aggregation inhibition
  (in vitro)
- Skin barrier function enhancement (in vitro)
- Vascular barrier function enhancement (in vitro)

**New!** Hair growth effect

#### [Origin of raw maerial]

Fruits of strawberry guava

#### **(Standard component)**

Adenosine

Glucosylceramide

#### Safety test

(P)

Single-dose test

LD50: 2,000 mg/kg or more

· Ames test



# <Expected to show synergistic effects with ceramide!</p> 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)

- 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)



-P (powder)

-Seed oil (post-ordered production)  Beauty enhancing action (moisturizing, beautifying, and whitening)

(Open study)

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 (in vivo)
- Moisturizing effect(in vivo)
- •Increases ceramide content (in vitro)
- ·Increases filaggrin and involucrin content (in vitro)
- Anti-obesity effect (in vivo)

[Origin of raw material]

Strawberry seed

[Standard component]

Polyphenols

Tiliroside

[Safety test]

(Strawberry seed extract)

· Single-dose test

LD50: 2,000 mg/kg or more

· Ames test



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

# TOMATO SEED EXTRACT

Application for food with function claims accepted in Japan

(Released in October 2018)

LycoLife

Recommended dosage

200 mg/day (P)

- Japanese Patent No. 6799114 ( ECM cycle normalizing agent )
- Japanese Patent No. 7026181( ECM cycle normalizing agent )



-P (water-soluble powder)

 Maintain skin elasticity, improve glycation stress

(Double-blind comparative study between parallel groups)

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

(Open test)

A four-week intake significantly increased the skin collagen score skin and improved in questionnaire skin conditions.

- Promotes collagen production (in vitro)
- Promotes elastin production (in vitro)

Promotes uptake of collagen and elastin degradation (in vitro)

- Increases number of intradermal lysosomes(in vitro)
- Anti-allergic effect(in vitro, in vivo)
- ·Dry skin ameliorative effect

(in vitro, in vivo)

[Origin of raw material]

Tomato seed

[Standard component]

Total Lycoperoside

[Safety test]

(Tomato seed extract)

·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 'ResoVine™

Recommended dosage

250mg/day (P)

(Released in November 2021)





-P (powder)

#### Suppresses fat absorption

(Double-blind comparative study between parallel groups)

It has been confirmed that the visceral fat area and abdominal circumference were decreased after 12 weeks intake.

(Single-blind crossover study)

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.

- •Suppresses fat absorption (in vivo)
- ·Suppresses fat accumulation

(in vitro, in vivo)

- Promotes fat metabolism (in vitro)
- Inbibits activity of pancreatic lipase (in vitro)
- Protects liver (non-alcohol and alcohol induced fatty liver)

(in vitro, in vivo)

# **(Origin of raw material)**

Leaves of Vine tea

#### **Standard component**

Ampelopsin

#### Safety test

(powder)

- Singer-dose test
  - LD50: 2000 mg/kg or more
- · Ames test



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

## WALNUT POLYPHENOL

(Released in September 2006)

#### Recommended dosage

50 to 150 mg/day (P10, WSP10)



-P10 (powder)

-WSP10

(water-soluble powder)

-OIL

Prevention of metabolic syndrome

(Multiple human clinical trials, from literature)

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.

Liver-protective effect

(in vitro, in vivo)

·Improves lipid metabolism

(in vitro, in vivo)

· Anti-diabetic effect

(in vitro, in vivo)

•Suppresses melanin production (in vitro)

[Origin of raw material]

Walnut seed skin

[Standard component]

Tellimagrandin I

Polyphenols

[Safety test]

(Walnut extract)

·Single-dose test

LD50: 2,000 mg/kg or more

•Intake test on human (-P10)

50 mg, 4 weeks



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

### WATERSHIELD EXTRACT

(Released in September 2012)

Recommended dosage

150 mg/day (P)

- Japanese Patent No. 6075025 (New compound and its use)
- Japanese Patent No. 6198463 (Composition for anti-aging of skin)



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

#### · Reduces fats

(Open study)

A three-week intake of the extract reduced the thickness of abdominal subcutaneous fat (males).

• Reduces body fats and cellulite

(Open study)

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 (in vitro, in vivo)
- Suppresses fibroblast damage and promotes collagen production (in vitro)
- Stimulates production of adiponectin and hyaluronic acid (in vitro)

### [Origin of raw material]

Watershield leaf

#### [Standard component]

Total polyphenols

Junsainoside A

Polysaccharides

#### [Safety test]

(Watershield extract)

·Single-dose test

LD50: 2,000 mg/kg or more

(-WSP)

· Ames test



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

## WHITE JELLY FUNGUS EXTRACT

Recommended dosage

(Released in October 2007)

50 to 200 mg/day (P)

#### • Japanese Patent No. 5525700 (liquid composition as well as beverages and cosmetics using it)



-P (water-soluble powder)

Suppresses hyperlipidemia

(Open study)

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 (in vitro)
- Interferes with fat accumulation (in vivo)
- Interferes with fat absorption (in vivo)
- •Lowers triglyceride and cholesterol levels(in vivo)
- Promotes bile acid secretion (in vivo)
- Promotes the growth of Lactobacillus and Bifidobacterium

(in vitro)

### [Origin of raw material]

Fruiting body of white jelly fungus

#### [Standard component]

Glucuronic acid

White jelly fungus

polysaccharides

#### [Safety test] (-P)

- ·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

(Released in April 2005)

Recommended dosage

200 to 300 mg/day (P)

#### • Japanese Patent No. 5014569 (Composition for skin improvement)





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

-OIL

•Beautifying effects (Open study)

A four-week ingestion resulted in increase in skin moisture in and improved skin texture *via* the promotion of skin turnover and expression of the hyaluronic acid synthesizing enzyme.

• Anti-stress effect (Open tstudy)

A single dose ingestion exhibited a relaxing effect *via* the enhancement of electroencephalogram(alpha waves) and improvement of blood flow.

- Improves blood circulation (Open test)
- Whitening effect (in vitro)
- ${\bf \cdot Increases\ fibroblast\ proliferation}$

(in vitro)

- Promotes skin turnover (in vitro)
- Suppresses expression of enzymes which decompose skin

components (in vitro)

• Anti-metabolic syndrome effect (in vivo)

### [Origin of raw material]

Yuzu seed

#### [Standard component]

Limonin

#### [Safety test]

(Yuzu seed extract)

- ·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
		-P (Powder)	50-100mg
	ALDIIA LIDOIC ACID	-P80 (Powder)	60-120mg
	ALPHA LIPOIC ACID	-WSP7(Water-Soluble Powder)	700-1,400mg
		-L1 (Emulsion)	500-1,000mg
		-5 (Oil)	80-120mg
	ASTAXANTHIN	-20 (Oil)	20-30mg
	ASTAXANTHIN	-P1 (Powder)	400-600mg
		-LS1 (Emulsion)	400-600mg
В	BIRD'S NEST EXTRACT	-P (Water-Soluble Powder)	70mg
	BLACK GINGER EXTRACT	-P (Powder)	50-150mg
	imesIn the case of foods with function claims :	WCD (W . C.1.11 D. 1.)	500 1 500mm
	P Recommended Dosage: 100mg/day	-WSP (Water-Soluble Powder)	500-1,500mg
		-EXTRACT (Water-Soluble Powder)	90-180mg
	BROCCOLI SPROUT EXTRACT	-PS1 (Water-Soluble Powder)	180-360mg
	imesIn the case of foods with function claims :	-EX (Water-Soluble Powder)	35-70mg
	EX Recommended Dosage: 185mg/day	-BROCCOLI SPROUT POWDER	150-300mg
		-BROCCOLI POWDER	4.5-9g
1	BUCKWHEAT LEAF EXTRACT	-P (Powder)	240-600mg
	BUCKWHEAT LEAF EATRACT	-WSP (Water-Soluble Powder)	12-30g
С	COCOA EVTRACT	-P (Powder)	100-250mg
	COCOA EXTRACT	-WSP (Water-Soluble Powder)	400-1,000mg
	CHINESE CHINE SEED EVEDACE	-P (Powder)	100mg
	CHINESE CHIVE SEED EXTRACT	-WSP (Water-Soluble Powder)	100mg
	CISTANCHE TUBULOSA EXTRACT	- P25 (Water-Soluble Powder)	100-400mg
	CITDLIC LINCLILL EVTDACT	-P (Powder)	200-500mg
	CITRUS UNSHIU EXTRACT	-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
	COFKINO EATRACT	- EXTRACT P0.5 (Water-Soluble Powder)	10-30mg

	Products	Grade	Recommended Dosage/day
Е	EVENING PRIMROSE EXTRACT	-P (Powder)	100-300mg
		-WSPS(Water-Soluble Powder)	100-300mg
	EVENING PRIMROSE EXTRACT	- PH (Powder)	90-120mg
	(Anti-H.pylori)	-WSPH (Water-Soluble Powder)	180-240mg
F	FERMENTED RICE GERM EXTRACT	-P (Powder)	200-500mg
	FERMENTED RICE GERM EXTRACT	-WSP (Water-Soluble Powder)	1.4-3.5g
	FLICOVANTHIN	-5KW (Oil)	10-60mg
	FUCOXANTHIN  *In the case of foods with function claims:	-1KW (Oil)	50-300mg
	5KW (oil) Recommended Dosage: 60mg/	-P1KW (Powder)	50-300mg
	day	-WSP0.1KW (Water-Soluble Powder)	500-3,000mg
	FucoRex™	-3 (Oil)	100mg
	*In the case of foods with function claims: 3 (oil) Recommended Dosage: 100mg/day	-1 (Oil)	300mg
G	e (city resonant and a design recomp, day		Menopause: 10-600mg
	GAMMA ORYZANOL	- (Powder, Food Additive)	Dysautonomia: 130-140mg
			Hyperlipidemia / cholesterol : 50-800mg
J		-P (Powder)	250mg
	JAPANESE BUTTERBUR EXTRACT	-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
		-WSP10 (Water-Soluble Powder)	100mg
		-WSP (Water-Soluble Powder)	-
	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 <sup>TM</sup> /SkinBarrier Lactic Acid Bacteria <sup>TM</sup> )	-P (Powder)	50mg
L		-J (Concentrated Fruit Juice )	1-2g
	LINGONBERRY EXTRACT	-PJ (Water-Soluble Powder)	5-10g
		-P0.5 (Water-Soluble Powder)	50-100mg
	LITCHI CEED EVTDACT	-P (Powder)	150-300mg
	LITCHI SEED EXTRACT	-WSP (Water-Soluble Powder)	150-300mg
		-P80- (Powder)	15-20mg
	XIn the case of foods with function claims: P80 Recommended Dosage: 50mg/day 20F Recommended Dosage: 50mg or 100mg/day	-P40- (Powder)	30-40mg
		-L8 (Water-Soluble Emulsion)  * post-ordered production	150-200 mg
		-20F (Oil)	60-100 mg
	MA OLU DEDDY EVED A OF	_ = = ( = 1.7	
M	MAQUI BERRY EXTRACT  *In the case of foods with function claims:	-P35 (Water-Soluble Powder)	30-60mg

	Products	Grade	Recommende	d Dosage/day
M	MOUNTAIN CAVIAR EXTRACT	-P (Water-Soluble Powder)	200-4	100mg
О		-P1 (Powder)	400-1,	000mg
		-P8 (Powder)	50-1	25mg
		-P10 (Powder)	40-1	00mg
	OCTA COS ANOI	-P12 (Powder)	34-8	34mg
	OCTACOSANOL	-P30 (Powder)	14-3	34mg
		-P45 (Powder)	9-2	2mg
		-P60 (Powder)	7-1	7mg
		-L0.5 (Emulsion)	800-2,	000mg
			Whitening:	Moisturizing:
		-PT (Powder)		
	ORYZA CERAMIDE™	-PCD (Powder)	30-50mg	20-40mg
	*In the case of foods with function claims:	-WSP (Water-Soluble Powder)		
	PCD, WSP, PT Recommended Dosage: 40mg/day	-WSP1(Water-Soluble Powder)	90-150mg	60-120mg
		-L (Emulsion)	300-500mg	200-400mg
		-L0.8 (Emulsion)	113-188mg	75-150mg
	ORYZA GABA <sup>TM</sup> **In the case of foods with function claims:  HC90 Recommended Dosage: 13.7mg or  31mg or 111mg/day	-HC5 (Water-Soluble Powder)	120-4	100mg
		-HC90 (Water-Soluble Powder)	6.7-2	22mg
		-C (Water-Soluble Emulsion)	1.2	g-4g
	F95R Recommended Dosage: 12.9mg or 30mg or 106mg/day	-Germ-P (germ powder)	2.4	8g
	ORYZA PEPTIDE	- P60 (Water-Soluble Powder)	500-1,000mg	Beauty: 100-200mg
	ORYZA PROTEIN™	- P80 (Powder)	440-8	380mg
	ORYZA POLYAMINE™	- P (Water-Soluble Powder)	50-100mg	
	ORYZA STEROL	-P (Powder) * post-ordered production	500	)mg
		-L (Emulsion) * post-ordered production	1	5g
		- (Oil)	160-3	380mg
	ORYZA TOCOTRIENOL™	- 90 (Oil)	42-1	00mg
		- P15CD (Powder)	320-7	750mg
		- P27CD (Powder)	140-3	330mg
		- L10 (Emulsion)	360-8	360mg
P	PASSIONFLOWER EXTRACT	-P (Powder)	200	)mg
	THOUSENI LOW EN LATTUTO	-WSP (Water-Soluble Powder)	600	)mg
	PERILLA SEED EXTRACT	-P (Powder)	100-1	50mg
	(Anti-allergic)	-WSP (Water-Soluble Powder)	100-1	50mg
	※In the case of foods with function claims :	-L (Emulsion)		225mg
	Oil Recommended Dosage: 5g or 10g/day	-Oil	lowering blood pressure $5\mathrm{g}$	Lowering LDL cholestrerol 10g

	Products	Grade	Recommended Dosage/day
Р	PERILLA SEED EXTRACT	-PO (Powder)	80-160mg
	(Anti-dental caries)	-LO (Liquid)	120-240mg
	POLYAMINE	-P (Water-Soluble Powder)	70mg
	PSORALEA CORYLIFOLIA	-3 (Oil)	35mg
	FRUIT EXTRACT	-P1 (Powder)	100mg
	PURPLE RICE EXTRACT	-P (Water-Soluble Powder)	200-400mg
	PURPLE TEA EXTRACT	-P (Powder)	100mg
	FURFLE TEA EXTRACT	-WSP (Water-Soluble Powder)	150mg
R	RED GINGER EXTRACT	-P (Powder)	15-20mg
	RED GINGER EXTRACT	-WSP (Water-Soluble Powder)	30-40mg
	RED RICE EXTRACT	-P (Powder)	50mg
	RED RICE EXTRACT	-WSP (Water-Soluble Powder)	250mg
	RESVERATROL	-P5 (Powder)	20-40mg
	RESVERATROL	-WSP0.5 (Water-Soluble Powder)	200-400mg
S	SAFFRON EXTRACT(Safleep™)	-P (Water-Soluble Powder)	22mg
	SAKURA EXTRACT	-P (Water-Soluble Powder)	50-150mg
	SAKURA LACTIC ACID	-P (Powder)	50mg
	BACTERIA (SAKULORA™)	-PD (Powder)	-
	SEABERRY EXTRACT	-P (Powder)	200-400mg
		-WSP (Water-Soluble Powder)	400mg
		- FRUIT OIL	150-450mg
		- (Oil)	50mg/intake
	SICHUAN PEPPER OIL	-P5 (Powder)	50-100mg/intake
		-P10 (Powder)	25-50mg/intake
	STRAWBERRY GUAVA	-P(Water-Soluble Powder)	100mg
	EXTRACT(FemBerry™)		
	STRAWBERRY SEED EXTRACT	-P (Powder)	40-80mg
Т	TOMATO SEED EXTRACT	-P(Water-Soluble Powder)	200mg
	(LycoLift <sup>TM</sup> )		
V	VINE TEA EXTRACT	-P (Powder)	250mg
	(ResoVine™)		Ü
W	WALNUT POLYPHENOL	- P10 (Powder)	50-150mg
		- WSP10(Water-Soluble Powder)	50-150mg
	WATERSHIELD EXTRACT	-P (Powder)	
		-WSP (Water-Soluble Powder)	150mg
	WHITE JELLY FUNGUS EXTRACT	-P (Water-Soluble Powder)	50-200mg

Pro	oducts	Grade	Recommended Dosage/day
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		- (Oil)	DMM*20 μ g/g
	A CLIAND DATED A CIT		(*Dihydroxy-Methoxy-Methylflavan)
	AGUAJE EXTRACT	-P (Powder)	DMM*5 μ g/g
		-L (Emulsion)	DMM*5 μ g/g
		-P (Powder)	α -Lipoic Acid 98.0 %
		-P80 (Powder)	α -Lipoic Acid 80.0 %
	ALPHA LIPOIC ACID	-WSP7(Water-Soluble Powder)	α -Lipoic Acid 7.0 %
		-L1 (Emulsion)	α -Lipoic Acid 10.0 %
		- 5 (Oil)	Astaxanthin (Free) 5.0 %
	A COTT A NA A NOTA HAN	-20 (Oil)	Astaxanthin (Free) 20.0 %
	ASTAXANTHIN	-P1 (Powder)	Astaxanthin (Free) 1.0 %
		-LS1 (Emulsion)	Astaxanthin (Free) 1.0 %
В	BIRD'S NEST EXTRACT	-P (Water-Soluble Powder)	Sialic Acid 1.5 %
		D (D 1)	Total Polymethoxyflavone 10.0 %
		-P (Powder)	5,7-Dimethoxyflavone 2.5 %
	BLACK GINGER EXTRACT	WOD (	Total Polymethoxyflavone 1.00 %
		-WSP (Water-Soluble Powder)	5,7-Dimethoxyflavone 0.25 %
		-EXTRACT (Water-Soluble Powder)	Glucoraphanin 5.0 %
			Sulforaphane 2.0 %
		-PS1 (Water-Soluble Powder)	Glucoraphanin 2.5 %
			Sulforaphane 1.0 %
	BROCCOLI SPROUT EXTRACT	-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 %
	BOCKWITEAT LEAF EATRACT	-WSP (Water-Soluble Powder)	Rutin 0.1 %
С		-P (Powder)	Theobromine 10.0 %
	COCOA EXTRACT		Polyphenols 20.0 %
	COCOA EXTRACT	-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	Standard Component
С		-P (Powder)	$\beta$ -cryptoxanthin 1000 $\mu$ g/100g
	CITDLIC LINCLILL EVTDACT		Hesperidin 0.3 %
	CITRUS UNSHIU EXTRACT	-L (Emulsion)	$\beta$ -cryptoxanthin 330 $\mu$ g/100g
			Hesperidin 0.10 %
		D (w . c 1 11 D . 1 )	Chlorogenic acid 24.0 %
	COFFEE BEAN EXTRACT	-P (Water-Soluble Powder)	Chlorogenic acids 45.0 %
		-WSP (Water-Soluble Powder)	Chlorogenic acids (9 peaks) 40.0 %
	CODDINOTM EVTDACT	- POWDER	Ergothioneine 0.3 %
	COPRINO™ EXTRACT	- EXTRACT P0.5 (Water-Soluble Powder)	Ergothioneine 0.5 %
Е	EVENING DRIMBOGE EVERAGE	-P (Powder)	Polyphenols 60.0 %
	EVENING PRIMROSE EXTRACT	-WSPS(Water-Soluble Powder)	Polyphenols 50.0 %
	EVENING PRIMROSE EXTRACT	- PH (Powder)	Polyphenols 18.0 %
	(Anti-H.pylori)	-WSPH (Water-Soluble Powder)	Polyphenols 15.0 %
F		-P (Powder)	polyphenols 3.0 %
	FERMENTED RICE GERM EXTRACT	-WSP (Water-Soluble Powder)	polyphenols 0.4 %
		-5KW (Oil)	Fucoxanthin 5.0 %
	ELICOVA NEDLINI	-1KW (Oil)	Fucoxanthin 1.0 %
	FUCOXANTHIN	-P1KW (Powder)	Fucoxanthin 1.0 %
		-WSP0.1KW (Water-Soluble Powder)	Fucoxanthin 0.1 %
	T. D. W.	-3 (Oil)	Fucoxanthin 3.0 %
	FucoRex <sup>TM</sup>	-1 (Oil)	Fucoxanthin 1.0 %
G	GAMMA ORYZANOL	-(Powder)	γ -Oryzanol 98.0 %
J	AADANDOD DIJETTIDDIJID DIJETA CE	-P (Powder)	Total polyphenols 1.0 %
	JAPANESE BUTTERBUR EXTRACT	-WSP (Water-Soluble Powder)	Total polyphenols 1.0 %
K		-P (Powder)	Luteolin 10 %
	KIKU FLOWER EXTRACT	-WSP10 (Water-Soluble Powder)	Luteolin 10 %
		- WSP (Water-Soluble Powder)	Luteolin 0.1 %
		-P (Powder)	Polyphenols 2.0 %
	WIND CRED TWEN A CT		Quercitrin 5.0 mg/100 g
	KIWI SEED EXTRACT	-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 <sup>TM</sup> /SkinBarrier Lactic Acid Bacteria <sup>TM</sup> )	-P (Powder)	Viable cell count $2 \times 10^{12}$ cfu/g

	Products	Grade	Standard Component
L		-J (Concentrated Fruit Juice )	-
	LINGONBERRY EXTRACT	-PJ (Water-Soluble Powder)	-
		-P0.5 (Water-Soluble Powder)	Arbutin 0.50 %
	I ITCHI CEED EVEDACE	-P (Powder)	Polyphenols 12.0 %
	LITCHI SEED EXTRACT	-WSP (Water-Soluble Powder)	Polyphenols 12.0 %
		-P80 (Powder)	Lutein (free) 40.0 %
			lutein ester 80.0 %
		-P40 (Powder)	Lutein (free) 20.0 %
	LUTEIN		lutein ester 40.0 %
	LUTEIN	-L8 (Water-Soluble Emulsion)	Lutein (free) 4.0 %
		* post-ordered production	lutein ester 8.0 %
		-20FA (Oil)	Lutein (free) 20.0 %
			Zeaxanthin (free) 4.0 %
M		-P35 (Water-Soluble Powder)	Total anthocyanins 35.0%
	MAQUI BERRY EXTRACT	-1 33 (water-soluble r owder)	Total delphinidins 25.0%
		-J (Concentrated Fruit Juice)	-
	MOUNTAIN CAVIAR EXTRACT	-P (Water-Soluble Powder)	Momordin Ic 2.0 %
О		-P1 (Powder)	Octacosanol 1 .0%
		-P8 (Powder)	Octacosanol 8 .0%
		-P10 (Powder)	Octacosanol 10 .0%
	OCTACOSANOL	-P12 (Powder)	Octacosanol 12.0%
	OCINCOSHIVOL	-P30 (Powder)	Octacosanol 30 .0%
		-P45 (Powder)	Octacosanol 45 .0%
		-P60 (Powder)	Octacosanol 60.0%
		-L0.5 (Emulsion)	Octacosanol 0.5%
		-PT (Powder)	Ceramide (Glycosphingolipids) 3.0 %
		-PCD (Powder)	Ceramide (Glycosphingolipids) 3.0 %
	ORYZA CERAMIDE™	-WSP1 (Water-Soluble Powder)	Ceramide (Glycosphingolipids) 1.0 %
		-WSP (Water-Soluble Powder)	Ceramide (Glycosphingolipids) 3.0 %
		-L (Emulsion)	Ceramide (Glycosphingolipids) 0.3%
		-L0.8 (Emulsion)	Ceramide (Glycosphingolipids) 0.8 %
		-HC5 (Water-Soluble Powder)	$\gamma$ -aminobutyric acid 5.0%
	ORYZA GABA™	-HC90 (Water-Soluble Powder)	$\gamma$ -aminobutyric acid 90.0%
		-F95R (Water-Soluble Powder)	$\gamma$ -aminobutyric acid 95%
		-C ( Water-Soluble Emulsion)	$\gamma$ -aminobutyric acid 500 mg/100 g
		Germ-P (germ powder)	$\gamma$ -aminobutyric acid 250 mg/ 100 g
	ORYZA PEPTIDE	- P60 (Water-Soluble Powder)	Peptide 60.0 %
	ORYZA PROTEIN™	- P80 (Powder)	Protein 80.0 %

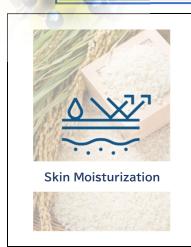
	Products	Grade	Standard Component
О	ORYZA POLYAMINE™	- P (Water-Soluble Powder)	Polyamine 0.2%
		-P (Powder)	Sterol 90.0 %
	ORYZA STEROL	* post-ordered production	0.0101701070
		-L (Emulsion) * post-ordered production	Sterol 3.0 %
		- (Oil)	Total tocopherols and tocotrienols
			30.0 %
			Total tocotrienols 16.0 %
		- 90 (Oil)	Total tocopherols and tocotrienols
			90.0 %
			Total tocotrienols 60.0 %
		- P15CD (Powder)	Total tocopherols and tocotrienols
	ORYZA TOCOTRIENOL™		15.0 %
			Total tocotrienols 8.0 %
		- P27CD (Powder)	Total tocopherols and tocotrienols
			27.0 %
			Total tocotrienols 18.0 %
		- L10 (Emulsion)	Total tocopherols and tocotrienols
			10.0 %
			Total tocotrienols 7.0 %
Р	PASSIONFLOWER EXTRACT	-P (Powder)	Total flavonoids 3.0 %
		-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
	(Anti-aneigle)	-L (Emulsion)	Polyphenols 2.0 %
			Certification Test Flavonoid
		-Oil	Alpha Linolenic Acid 55.0 %
	PERILLA SEED EXTRACT	-PO (Powder)	Polyphenols 3.0 %
	(Anti-dental caries)		Certification Test Flavonoid
		-LOGC (Liquid)	Polyphenols 2.0 %
			Certification Test Flavonoid
	POLYAMINE	-P (Water-Soluble Powder)	Polyamine 0.15 %
	PSORALEA CORYLIFOLIA	-3 (Oil)	Bakuchiol 3.0 %
	FRUIT EXTRACT	-P1 (Powder)	Bakuchiol 1.0 %
	PURPLE RICE EXTRACT	-P (Water-Soluble Powder)	Polyphenols 15.0 %
			Anthocyanins 5.0 %

PURPLE TEA EXTRACT         -P (Powder)         Polyphenols 30.0 % (HG² 3.0 % (HG² 2.0 %)))))         -WSP (Water-Soluble Powder)         Polyphenols 10.0 % (HG² 2.0 %)           R         A P (Powder)         161-gingerol and 161-shogaol 6.0 % Tannin 1.5 % (Certification Test 3R,5S-[6]-gingerol on 1.5 % (Certification Test Proanthocyanins Polyphenols 5 % (Certification Test Proanthocyanins Polyphenols 5 % (Certification Test Proanthocyanins Polyphenols 2.5 % (Certification Test Proanthocyanins Polyphenols 2.5 % (Certification Test Proanthocyanins Polyphenols 2.5 % (Tans-Resveratrol 5.0 %)           EXEVERATROL         -PS (Powder)         Polyphenols 2.5 % (Tans-Resveratrol 0.5 % (Tans-Resveratrol 0.5 %)           SAKURA EXTRACT         -P (Water-Soluble Powder)         Polyphenols 2.5 % (Tans-Resveratrol 0.5 %)           SAKURA LACTIC ACID BACTERIA (SAKULORA™)         -P (Water-Soluble Powder)         Caffeoyl Clucose 2.0 Quercetin Glucoside 0.05 %           SABERRY EXTRACT         -P (Powder)         Count 1 × 10¹² cfu/g           SEABERRY EXTRACT         -P (Powder)         Count 1 × 10² cfu/g           SEABERRY EXTRACT         -P (Powder)         Insolic acid 0.1 %           STRAWBERRY GUAVA EXTRACT         -F (Fowder)         Hydroxy sanshools 0.1 %		Products	Grade	Standard Component
PURPLE TEA EXTRACT	Р		-P (Powder)	Polyphenols 30.0 %
Polyphenols 10.0 % GHG* 2.0 %				GHG* 3.0 %
RED GINGER EXTRACT		PURPLE TEA EXTRACT		(*1,2-di-O-galloyl-4,6-O-(S)-hexahydroxydiphenoyl- $\beta$ - $_{\rm D}$ -glucose)
RED GINGER EXTRACT			-WSP (Water-Soluble Powder)	Polyphenols 10.0 %
RED GINGER EXTRACT				GHG* 2.0 %
RED GINGER EXTRACT  RED GINGER EXTRACT  RED GINGER EXTRACT  RED GINGER EXTRACT  POSSP (Water-Soluble Powder) [6]-gingerol and [6]-shogaol 3.0 % Tannin 0.5 % Certification Test 3R,5S-[6]-gingerdiol [6]-gingerol and [6]-shogaol 3.0 % Tannin 0.5 % Certification Test 3R,5S-[6]-gingerdiol [7] Polyphenols 5 % Certification Test Proanthocyanins Polyphenols 5 % Certification Test Proanthocyanins Polyphenols 1 % Certification Test Proanthocyanins Polyphenols 25.0 % trans-Resveratrol 5.0 % Polyphenols 25.0 % trans-Resveratrol 0.5 % Polyphenols 2.5 % trans-Resveratrol 0.5 % Polyphenols 2.5 % trans-Resveratrol 0.5 % Polyphenols 2.5 % Caffeoyl Glucose 2.0 Quercetin Glucoside 0.05 % Polyphenols 2.5 % Polyphenols 2.0 %	R		-P (Powder)	[6]-gingerol and [6]-shogaol 6.0 %
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$				Tannin 1.5 %
RED GINGER EXTRACT -WSP (Water-Soluble Powder) RED RICE EXTRACT  RED RICE EXTRACT -P (Powder) -WSP (Water-Soluble Powder) -PS (Powder) -PS (Powder) -PS (Powder) -POlyphenols 5 % -Certification Test Proanthocyanins -WSP (Water-Soluble Powder) -POlyphenols 1 % -Certification Test Proanthocyanins -PS (Powder) -POlyphenols 25.0 %				Certification Test 3R,5S-[6]-
**SP** (Water-Soluble Powder)   [6]-gingerol and [6]-shogaol 3.0 % Tannin 0.5 %   Certification Test 3R,5S-[6]-gingerdiol    **RED RICE EXTRACT**   Powder)   Polyphenols 5 %   Certification Test Proanthocyanins    **RESVERATROL**   Polyphenols 1 %   Certification Test Proanthocyanins    **P (Powder)   Polyphenols 25.0 %   trans-Resveratrol 5.0 %    **WSP (Water-Soluble Powder)   Polyphenols 25.5 %   trans-Resveratrol 0.5 %    **SAFFRON EXTRACT(Safleep***   Polymenols 2.5 %   trans-Resveratrol 0.5 %    **SAKURA EXTRACT**   Powder   Coroin 3.0 %    **SAKURA LACTIC ACID   Powder   Count 1×101² cfu/g    **P (Powder)   Count 1×101² cfu/g    **P (Powder)   Ursolic acid 0.1 %    **SEABERRY EXTRACT**   Powder   Ursolic acid 0.1 %    **SP (Water-Soluble Powder)   Hydroxy sanshools 0.1 %    **PETIT OIL   Hydroxy sanshools 0.1 %    **PETIT OIL   Hydroxy sanshools 0.1 %    **PETIT OIL   Hydroxy sanshools 0.2 %    **STRAWBERRY GUAVA   Powder   Hydroxy sanshools 0.2 %    **STRAWBERRY GUAVA   Powder   Hydroxy sanshools 0.2 %    **PETIT OIL   Hydroxy sanshools 0.2 %    **Petit Count 1 **Initiotic of the powder of the pow				gingerdiol
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$		RED GINGER EXTRACT	-WSP (Water-Soluble Powder)	[6]-gingerol and [6]-shogaol 3.0 %
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$				Tannin 0.5 %
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$				Certification Test 3R,5S-[6]-
RED RICE EXTRACT  -WSP (Water-Soluble Powder)  Polyphenols 1 % Certification Test Proanthocyanins Polyphenols 25.0 % Trans-Resveratrol 5.0 %  -WSP0.5 (Water-Soluble Powder)  Polyphenols 2.5 % Trans-Resveratrol 0.5 %  SAFFRON EXTRACT(Safleep <sup>TM</sup> )  SAKURA EXTRACT  -P (Water-Soluble Powder)  SAKURA LACTIC ACID BACTERIA (SAKULORA <sup>TM</sup> )  SEABERRY EXTRACT  -P (Powder)  SEABERRY EXTRACT  -P (Powder)  SEABERRY EXTRACT  -P (Powder)  SEABERRY EXTRACT  -P (Powder)  -				gingerdiol
RED RICE EXTRACT  -WSP (Water-Soluble Powder)  RESVERATROL  -P5 (Powder)  -P6 (Powder)  -P0lyphenols 25.0 %  trans-Resveratrol 5.0 %  -WSP0.5 (Water-Soluble Powder)  Polyphenols 2.5 %  trans-Resveratrol 0.5 %  SAFFRON EXTRACT(Saffeep $^{TM}$ )  -P (Water-Soluble Powder)  SAKURA EXTRACT  -P (Water-Soluble Powder)  SAKURA LACTIC ACID  BACTERIA (SAKULORA $^{TM}$ )  -PD (Powder)  SEABERRY EXTRACT  -P (Powder)  -PD (Powder)  -PO (Water-Soluble Powder)  SEABERRY EXTRACT  -PO (Powder)  -PO (Powder			-P (Powder)	Polyphenols 5 %
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$				Certification Test Proanthocyanins
$\begin{tabular}{ l l l l l l l l l l l l l l l l l l l$		RED RICE EXTRACT	-WSP (Water-Soluble Powder)	Polyphenols 1 %
RESVERATROL  -WSP0.5 (Water-Soluble Powder) -WSP0.5 (Water-Soluble Powder) -WSP0.5 (Water-Soluble Powder) -WSP0.5 (Water-Soluble Powder) -P (Powder) -P (Water-Soluble Powder) -P (Water-Soluble Powder) -P (Powder) -P (Powder) -P (Powder) -P (Water-Soluble Powder) -P (Powder) -P (Water-Soluble Powder) -P (Water-Soluble				Certification Test Proanthocyanins
RESVERATROL  -WSP0.5 (Water-Soluble Powder)  SAFFRON EXTRACT(Safleep <sup>TM</sup> )  -P (Water-Soluble Powder)  SAKURA EXTRACT  SAKURA EXTRACT  SAKURA LACTIC ACID  BACTERIA (SAKULORA <sup>TM</sup> )  -P (Powder)  SEABERRY EXTRACT  -P (Powder)  SEABERRY EXTRACT  -P (Powder)  SEABERRY EXTRACT  -P (Powder)  -P (Powder)  -P (Powder)  -P (Powder)  -P (Powder)  -P (Powder)  -FRUIT OIL  SICHUAN PEPPER OIL  -STRAWBERRY GUAVA  EXTRACT (FemBerry <sup>TM</sup> )  STRAWBERRY SEED EXTRACT  -P (Powder)  -P (Powder)  -P (Powder)  -P (Water-Soluble Powder)  -P (Powder)  -P (Powder)  -P (Powder)  -P (Powder)  -P (Water-Soluble Powder)  -P (Powder)			-P5 (Powder)	Polyphenols 25.0 %
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				trans-Resveratrol 5.0 %
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		RESVERATROL	-WSP0.5 (Water-Soluble Powder)	Polyphenols 2.5 %
SAKURA EXTRACT -P (Water-Soluble Powder) -P (Water-Soluble Powder) -P (Water-Soluble Powder) -P (Water-Soluble Powder) -P (Quercetin Glucoside 0.05 % -P (Powder) -P (Water-Soluble Powder) -P (Powder) -P (Water-Soluble Powder) -P (Powder) -P				trans-Resveratrol 0.5 %
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	S	SAFFRON EXTRACT(Safleep™)	-P (Water-Soluble Powder)	Crocin 3.0 %
$SAKURA LACTIC ACID \\ BACTERIA (SAKULORA^{TM}) -P (Powder) & Count 1 \times 10^{12}  \text{cfu/g} \\ -PD (Powder) & Count 1 \times 10^{11}  \text{cfu/g} \\ -PD (Powder) & Ursolic acid 0.1  \% \\ -PRUIT OIL & Palmitoleic Acid (\omega -7) 30.0  \% \\ -PRUIT OIL & Palmitoleic Acid (\omega -7) 30.0  \% \\ -PS (Powder) & Ursolic acid 0.1  \% \\ -PRUIT OIL & Palmitoleic Acid (\omega -7) 30.0  \% \\ -PS (Powder) & Hydroxy sanshools 0.1  \% \\ -PS (Powder) & Hydroxy sanshools 0.1  \% \\ -P10 (Powder) & Hydroxy sanshools 0.2  \% \\ -P(Water-Soluble Powder) & Adenosine 5  \mu  g/g \\ -P(Water-Soluble Powder) & Glucosylceramide 50  \mu  g/g \\ -P (Powder) & Tiliroside 0.5  \% \\ -POphenols 2.0  \% \\ -POPHONDER \\$		CAVIIDA EVTDACT	D (W C.1.11. D 1 )	Caffeoyl Glucose 2.0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		SAKOM EXTIMET	-1 (water-soluble rowder)	Quercetin Glucoside 0.05 %
SEABERRY EXTRACT		SAKURA LACTIC ACID	-P (Powder)	Count $1 \times 10^{12}  \text{cfu/g}$
SEABERRY EXTRACT		BACTERIA (SAKULORA™)	-PD (Powder)	Count $1 \times 10^{11}  \text{cfu/g}$
SEABERRY EXTRACT			-P (Powder)	Ursolic acid 0.1 %
- FRUIT OIL		SEAREDDY EYTDACT	-WSP (Water-Soluble Powder)	Isorhamnetin rhamnoside 0.1 %
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		SEADERRI EXTRACT	- FRUIT OIL	Palmitoleic Acid (ω-7) 30.0 %
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				Certification Test Carotenoids
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			-5 (Oil)	Hydroxy sanshools 0.1 %
STRAWBERRY GUAVA EXTRACT(FemBerry <sup>TM</sup> )  STRAWBERRY SEED EXTRACT $ \begin{array}{cccccccccccccccccccccccccccccccccc$		SICHUAN PEPPER OIL	-P5 (Powder)	Hydroxy sanshools 0.1 %
EXTRACT(FemBerry <sup>TM</sup> )  STRAWBERRY SEED EXTRACT  P (Powder)  Tiliroside $0.5 \%$ Polyphenols $2.0 \%$			-P10 (Powder)	Hydroxy sanshools 0.2 %
STRAWBERRY SEED EXTRACT  -P (Powder)  Tiliroside 0.5 % Polyphenols 2.0 %		STRAWBERRY GUAVA	-P(Water-Soluble Powder)	Adenosine 5 μ g/g
STRAWBERRY SEED EXTRACT Polyphenols 2.0 %		$EXTRACT(FemBerry^{TM})$		Glucosylceramide $50\mu\mathrm{g/g}$
Polyphenols 2.0 %		CTD A MIDEDDA CEED EVTD A OT	-P (Powder)	Tiliroside 0.5 %
T TOMATO SEED EXTRACT -P(Water-Soluble Powder) Total lycoperosides 0.5 %		STRAWBERRY SEED EXTRACT		Polyphenols 2.0 %
	Т	TOMATO SEED EXTRACT	-P(Water-Soluble Powder)	Total lycoperosides 0.5 %
(LycoLift <sup>TM</sup> )		(LycoLift <sup>TM</sup> )		

	Products	Grade	Standard Component
V	VINE TEA EXTRACT(ResoVine™)	-P (Powder)	Ampelopsin (Dihydromyricetin)
	VINE LEA EXTRACT (Resovine****)		50.0 %
W		- P10 (Powder)	Polyphenols 10.0 %
	WALNUT POLYPHENOL		Tellimagrandin I 0.1 %
	WALNOT FOLIFIIENOL	- WSP10(Water-Soluble Powder)	Polyphenols 10.0 %
			Certification Test Tellimagrandin I
		-P (Powder)	Polyphenols 5.0 %
MAT			Junsainoside A 0.01 %
	WATERSHIELD EXTRACT		Polysaccharides 2.5 %
	WATEKSHIELD EXTRACT	-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 %
	WITTE JEELT FONGOS EXTRACT		Glucuronic Acid 10.0 - 30.0 %
Y	YUZU SEED EXTRACT	-P (Powder)	Limonin 0.5 %
	TOZO SEED EATRACT	-WSP (Water-Soluble Powder)	Certification Test Limonin



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



Product Name	ORYZA CERAMIDE <sup>TM</sup>
Ingredient Involved with the Functionality/Daily Intake	Rice-derived glucosyl ceramide /1.8mg
Daily Intake (Product)	-PCD、-WSP、PT/60mg
Applied Indication (Example)	It has been reported that for those who are concerned about dry skin, rice-derived glucosyl ceramide prevents moisture evaporation from the skin surface and helps the skin to stay moist.
Scientific Basis of Functionality	SR



Product Name	ORYZA CERAMIDE <sup>TM</sup>	
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 for those who tend to have dry skin, rice-derived glucosylceramide prevents moisture evaporation from the skin (cheeks), and increases the barrier function (moisturizing power) of the skin (cheeks).	
Scientific Basis of Functionality	SR	



Product Name	ORYZA CERAMIDE <sup>TM</sup>
Ingredient Involved with the Functionality / Daily Intake	Rice-derived glucosyl ceramide /0.6mg
Daily Intake (Product)	-PCD、-WSP、PT/20mg
Applied Indication (Example)	It has been reported that rice-derived glucosylceramide makes it difficult for skin to lose moisture and increases the skin's barrier function (moisturizing power) for those who are concerned about dry skin.
Scientific Basis of Functionality	SR

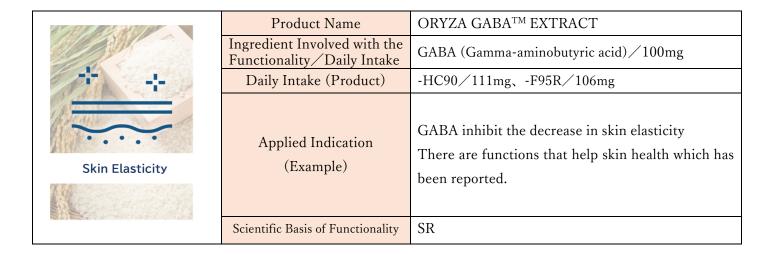


	Product Name	BROCCOLI SPROUT EXTRACT
as the transmitted by	Ingredient Involved with the Functionality/Daily Intake	Sulforaphane glucosinolate /24mg
	Daily Intake (Product)	-EX/190mg
Improvement of Liver Function(Lower Blood ALT Level)	Applied Indication (Example)	Sulforaphane glucosinolate which could 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

	Product Name	ORYZA GABA™ EXTRACT
	Ingredient Involved with the Functionality/Daily Intake	GABA (Gamma-aminobutyric acid) / 100mg
	Daily Intake (Product)	-HC90/111mg、-F95R/106mg
Quality of Sleep	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

	Product Name	ORYZA GABA <sup>™</sup> EXTRACT
	Ingredient Involved with the Functionality/Daily Intake	GABA (Gamma-aminobutyric acid) / 12.3mg
	Daily Intake (Product)	-HC90/13.7mg, -F95R/12.5mg
Lower Blood Pressure	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

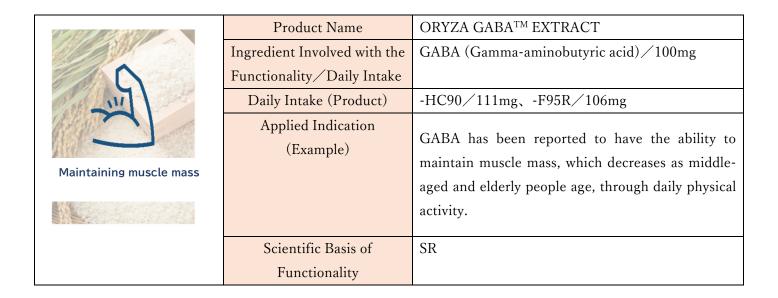




	Product Name	ORYZA GABA <sup>TM</sup> EXTRACT
	Ingredient Involved with the Functionality/Daily Intake	GABA (Gamma-aminobutyric acid) / 28mg
10 11	Daily Intake (Product)	-HC90/31mg、-F95R/30mg
Relieving Mental Stress	Applied Indication (Example)	It has been reported that GABA has an effect of temporarily relieving mental stress caused by desk work.
	Scientific Basis of Functionality	SR

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

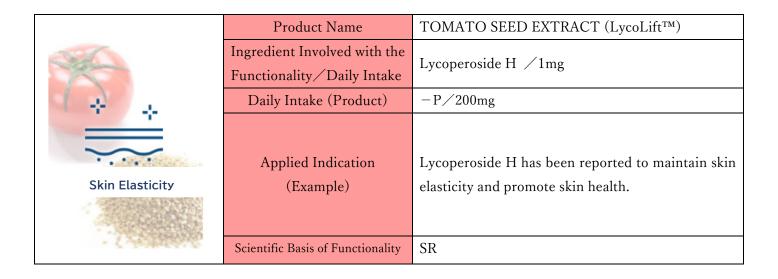


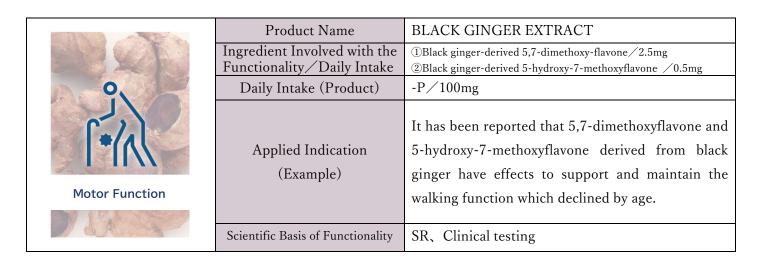


WF - 7 - 70	Product Name	KIKU FLOWER EXTRACT
	Ingredient Involved with the Functionality/Daily Intake	Luteolin /10mg
	Daily Intake (Product)	-P, -WSP10/100mg
Lower on Uric	Applied Indication (Example)	It has been reported that luteolin has lowering effect of lowering on uric acid level people with relatively high uric acid level.
	Scientific Basis of Functionality	SR、Clinical testing

1 O FE CO C	Product Name	KIKU FLOWER EXTRACT
The state of the s	Ingredient Involved with the	Luteolin /20mg
C	Functionality/Daily Intake	24000000 / 20008
*	Daily Intake (Product)	-P, -WSP10/200mg
Reduce Eye Discomfort	Applied Indication (Example)	Luteolin has been reported to reduce eye discomfort caused by pollen, dust, and house dust.
	Scientific Basis of Functionality	SR







	Product Name	COFFEE BEAN EXTRACT
	Ingredient Involved with the Functionality/Daily Intake	Chlorogenic acids/180mg
	Daily Intake (Product)	-WSP/450mg
Improvement of BMI by Reducing Visceral fat and Weight	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



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

	Product Name	MAQUI BERRY EXTRACT (MaquiBright®)	
Dealer Y	Ingredient Involved with the Functionality/Daily Intake	Delphinidin-3,5-diglucoside /4mg	
	Daily Intake (Product)	-P35/40mg	
		Delphinidin-3,5-diglucoside supports the	
		deteriorating eye moisturization of healthy people	
	Applied Indication	ndication who do VDT work such as smartphones and vic	
Eye Moisturization Reducing Eye Fatigue	(Example)	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	

	Product Name	LUTEIN
NA	Ingredient Involved with the Functionality/Daily Intake	Lutein ester /40mg
	Daily Intake (Product)	-P80/50mg
Protect the Eye From Daily Photoirritations	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





Product Name	LUTEIN (FREE)	
Ingredient Involved with the	Lutein 10 mg、Zeaxanthin 2mg	
Functionality/Daily Intake		
Daily Intake (Product)	-20F/50mg	
Applied Indication	It has been reported that free lutein & zeaxanthin	
(Example)	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	



Product Name	LUTEIN (FREE)
Ingredient Involved with the	Lutein 10 mg、Zeaxanthin 2mg
Functionality/Daily Intake	
Daily Intake (Product)	-20F/50mg
Applied Indication	It has been reported that free lutein & zeaxanthin
(Example)	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



Product Name	LUTEIN (FREE)
Ingredient Involved with the	Lutein 20 mg、 Zeaxanthin 4.08mg
Functionality/Daily Intake	
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

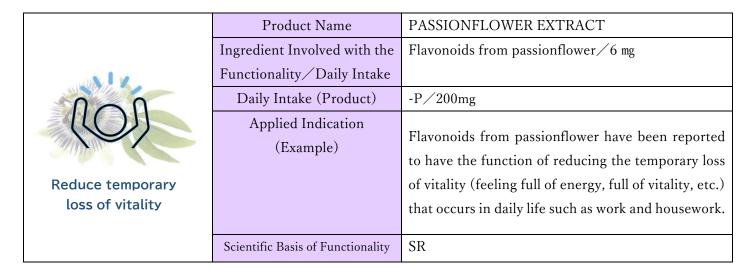


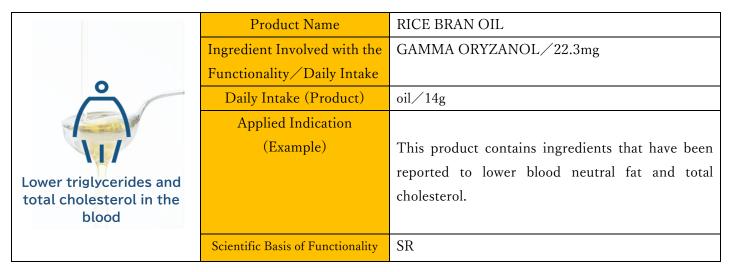
Marine .	Product Name	PERILLA SEED Oil
	Ingredient Involved with the Functionality/Daily Intake	α -linolenic acid /2.6g
	Daily Intake (Product)	OIL/5g
Lower Blood Pressure	Applied Indication (Example)	It has been reported that $\alpha$ -linolenic acid has a function of lowering blood pressure in people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

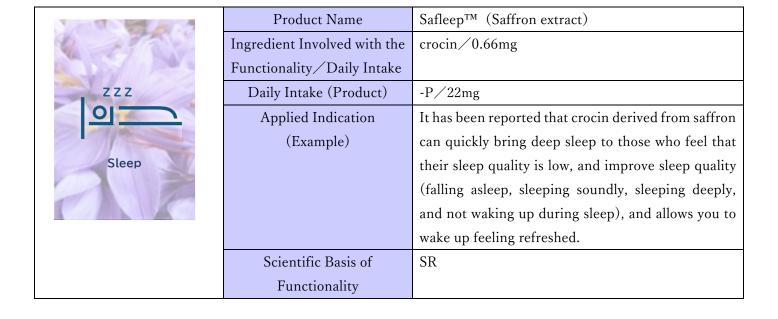
Mill District	Product Name	PERILLA SEED Oil
•	Ingredient Involved with the Functionality/Daily Intake	α -linolenic acid /5.49g
	Daily Intake (Product)	OIL/10g
Lower LDL Cholesterol Level	Applied Indication (Example)	lpha -Linolenic acid has been reported to lower the level of bad (LDL) cholesterol in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

	Product Name	FUCOXANTHIN , FucoRex TM
	Ingredient Involved with the Functionality/Daily Intake	FUCOXANTHIN /3mg
	Daily Intake (Product)	FUCOXANTHIN -5KW/60mg,
	Daily Ilitake (1 foduct)	FucoRex ™-3/100mg
Improvement of BMI by Reducing Visceral fat and Weight	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











# Oryza's Rice Oils and Defatted Bran Products

<rice oil=""></rice>		
Product Name	Features and Main Functions	Packaging
RICE BRAN OIL (JAS product)	•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> <li>Edible oil purified from rice bran by low temperature extraction (NEM) and NRM method.</li> <li>Its features are a refreshing taste and smooth texture.</li> </ul>	600 g 16.5 kg 181.5 kg Lorry
ORYZA RICE GERM OIL	<ul> <li>Rice germ oil with high antioxidative property containing 1.2 to 1.5% gamma-oryzanol.</li> <li>It provides a moisturizing effect, UV-ray absorbing effect, and tyrosinase inhibition.</li> </ul>	16 kg
RICE GERM OIL	<ul> <li>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.</li> <li>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.</li> <li>It has an anti-oxidative effect as well as cholesterol-lowering, UV-ray absorption, and lipid peroxides reducing effect.</li> </ul>	16 kg
ORYZA OIL-EX	• 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 (food)="" bran=""></defatted>		
Product Name	Features and Main Functions	Packaging
ORYZA DRIM	<ul> <li>Special defatted bran containing large amounts of plant fibers, proteins, and sugars.</li> <li>Finely-ground and grain size adjusted. Water contents is less than 2%.</li> <li>Dietary fiber content: 33.2 g/100 g</li> <li>Suitable for weight control and constipation.</li> </ul>	15 kg
ORYZA GERM-DLP	<ul> <li>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.</li> <li>Single-dose test, LD50: 2,000 mg/kg or more</li> </ul>	15 kg 20 kg
ORYZA GERM-DLS	<ul> <li>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.</li> <li>Single-dose test, LD50: 2,000 mg/kg or more</li> </ul>	15 kg 20 kg

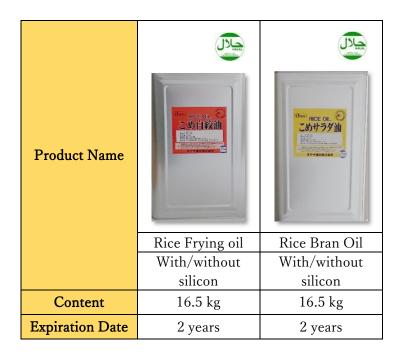
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Product Name	Features and Main Functions	Packaging
DEFATTED BRAN	•Its feature is high storage efficiency (bridge formation does not occur). This is achieved as bran particles are fine and spherical because extruder processing is used in the	20 kg Contact us
12M	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	for smaller portions
	and be absorbed.  •It is suitable for animal feed, fertilizer, and culture media.	
DEFATTED BRAN	<ul> <li>Special defatted rice bran created by grinding carefully-selected NEM defatted rice bran and adjusting the grain size.</li> <li>It is suitable for culture media of various fungi, diluent for</li> </ul>	15 kg 20 kg
25M	calibration substances for animal drugs, and diluent for premixing vitamins, etc.	





## Oryza's Rice Oils

Product Name	ORYZA RICE BRAN OIL Rice Bran Oil 600 g x 20	上版の HEALTHY E LU	
		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



## [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	1192721
		oil from rice bran	(Expiration of validity period)
2	FERULIC ACID	Oil-solubilized skin rub for ferulic acid ester	1371867
			(Expiration of validity period) 1480318
3	RICE BRAN OIL	Filtration device	(Expiration of validity period)
			1401763
4	MELANOIDIN	Melanoidin-containing skin cosmetics	(Expiration of validity period)
5	RICE BRAN OIL	Method for separating fatty acids from crude oils and fats	1998674
J	MCL BIGHT OIL	Wethou for separating fatty acids from crude ons and fats	(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 $\gamma$ -aminobutyric acid	2810993
		acid	(Expiration of validity period) 4231559
8	PERILLA SEED EXTRACT	Lipoxygenase inhibitor	(Expiration of validity period)
	DEDILLA CEED EVEDACE	A 11 . 1 . C . 1	4112730
9	PERILLA SEED EXTRACT	Antibacterial agent for oral cavity	(Expiration of validity period)
10	EVENING PRIMROSE EXTRACT	Carbohydrate absorption inhibitor and its manufacturing	4873824
10	EVENING I KIMKOSE EXTRACT	method	(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
		An immunological determination method of fucoidan content	(Expiration of validity period) 5502298
13	FUCOIDAN	which used a fucoidan specific antibody	(Expiration of validity period)
1.4	DDOCCOLI CDDOLIT EVTDACT		3754646
14	BROCCOLI SPROUT EXTRACT	For external use on skin	(Expiration of validity period)
15	RICE BRAN OIL	For external use on skin	3704498
	Idoz Biant orz	To external ase on skin	(Expiration of validity period)
16	LITCHI SEED EXTRACT	Elastase inhibitor	3953387
			(Expiration of validity period) 4541662
17	EVENING PRIMROSE EXTRACT	Anti-H.pylori composite	(Expiration of validity period)
10	AT DATA TABOTO FORD		4849792
18	ALPHA LIPOIC ACID	Composite for beauty enhancement	(Expiration of validity period)
19	YUZU SEED EXTRACT	Composite for skin improvement	5014569
20	COFFEE BEAN EXTRACT	Composite for weight control	4499665
0.1	LADANIES DIEMEDDIE DIE DIEDAS	A	(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
	<u> </u>	<u>i</u>	

 $\ensuremath{\mathsf{X}}$  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	Liquid composite, as well as beverages and cosmetics using	5525700
	EXTRACT,LINGONBERRY EXTRACT,	it	(Expiration of validity period)
	WHITE JELLY FUNGUS EXTRACT		
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 $\beta$ -sitosterol glucoside containing composition	6604806
52	FERMENTED RICE GERM EXTRACT	The method of stigmasterol 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	$\gamma$ -Oryzanol soluble liquid composition	6639892
56	ORYZA CERAMIDE TM	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- $\alpha$ 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	$5 \alpha$ -reductor inhibitor	7237204
72	FUCOXANTHIN	Sarcopenia obesity preventive/improving agent	7246965
73	CosmeHerbest <sup>TM</sup> BLACK CUMIN	Stress odor component reducer	7297454
74	COCOA EXTTRACT	Lipin 1 gene expression promoter	7427397
75	Sichuan Pepper Oil	Oral antibacterial agent	7433125
76	TOMATO SEED EXTRACT	Oral skin care composition	7405543
77	MAQUIBERRY EXTTRACT	Redness improving agent on the skin	7530200
78	PURPLE TEA EXTRACT	NO production promoter, explosive power improver for lower limb muscles, and agent for reducing muscle damage caused by intensive exercise	7489216

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



## International Patent

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



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		polymethoxy flavonoids in myocytes through improving glucose. J.
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	EXTRACT	fitness performance and muscular endurance by improving inflammation and
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		Toda K., Kohatsu M., Takeda S., Hitoe S., Shimizu N., Shimoda H. Enhancement
		of physical fitness by black ginger extract rich in polymethoxyflavones: a double-
		blind randomized crossover trial. Integrative Mol.Med.3,628-634(2016).
		Suzuki R., KohnoH., Sugie S., Okada T., Tanaka T. Preventive effects of podered
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		of Edible Bird's Nest Extract on Human Skin. Int J Biomed Sci. 16(4), (2020)
		Kim O., Kim D., Lee M., Park S., Yamada W., Eun S., Lee J. Standardized Edible
	BIRD'S NEST EXTRACT	Bird's Nest Extract Prevents UVB Irradiation-Mediated Oxidative Stress and
		Photoaging in the Skin. Antioxidants. 10(9), 1452 (2021).
		Kim HM., Lee YM., Kim EH., Eun SW., Sung HK., Ko H., Youn SJ., Choi Y.,
		Yamada W., Shin SM. Anti-Wrinkle Efficacy of Edible Bird's Nest Extract: A
		Randomized, Double-Blind, Placebo-Controlled, Comparative Study. Front Pharmacol., 13, 843469 (2022).
		1 natmacon, 15, 075707 (2022).
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	TUBULOSA EXTRACT	hypocholesterolemic effects of Cistanche tubulosa extract, a Chinese traditional
	I ODOLOGA EXTRACT	clued medicine, in mice. Am. J.Chin.Med.37, 1125-1138(2009).
		Shimoda H. Shan S.H. Tanaka I. Maoka T. Cruntavantin sunnyassa J.IN/D
	CITRUS UNSHIU	Shimoda H., Shan S.H., Tanaka J., Maoka T., Cryptoxantin suppressed UVB-induced melanogenesis in mouse: involvement of the inhibition of prostaglandin
	EXTRACT	E2 and melanocyte-stimulating hormone pathway.
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 $<sup>\</sup>bigstar$  : A study on Oryza products conducted by an outside party.



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C		accumulation and body weight gain in mice.
		BMC Complemant.Altern.Med,6-9(2006).
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E		哲、高沢謙二 月見草エキス含有錠剤食品が食後血糖値に及ぼす影響と1日1回
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 $\bigstar$  : 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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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 BROCOLI SPROUT EXTRACT	Food	36	ORYZAGAMMA™-V	cosmetic
7	BROCOLI SPROUT EXTRACT-PC	cosmetic	37	GAMMA ORYZANOL-E	Food
8	BROCOLI SPROUT EXTRACT -PS1	Food	38	ORYZA GAMMAX®	Food
9	BROCOLI 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-WSPSC	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	94	PERILLA SEED EXTRACT-LC	cosmetic
62	MAQUI BERRY EXTRACT-PC35	cosmetic	95	PERILLA SEED EXTRACT-LOGC	cosmetic
63	MaquiBright™	Food	96	POLYAMINE-P	Food
64	MAQUI BERRY EXTRACT-LC	cosmetic	97	PSORALEACORYLIFOLIAFRUITEXTRACT (PhytoRetinol™)-3	Food
65	MAQUI BERRY EXTRACT-J	Food	98	PSORALEACORYLIFOLIAFRUITEXTRACT (PhytoRetinol™)-3C	cosmetic
66	MOUNTAIN CAVIAR EXTRACT-P	Food	99	PSORALEACORYLIPOLIAFRUITEXTRACT (PhytoRetinol™)-P1	Food
67	ORYZA CERAMIDE™-PCD	Food	100	PSORALEACORYLIFOLIAFRUITEXTRACT(PhytoRetinol™)-PC1	cosmetic
68	ORYZA CERAMIDE™-PC	cosmetic	101	PURPLE RICE EXTRACT-P	Food
69	ORYZA CERAMIDE™-WSP	Food	102	PURPLE RICE EXTRACT-PC	cosmetic
70	ORYZA CERAMIDE™-WSPC	cosmetic	103	PURPLE TEA EXTRACT-P	Food
71	ORYZA CERAMIDE™-L0.8	Food	104	PURPLE TEA EXTRACT-PC	cosmetic
72	ORYZA CERAMIDE™-LC0.8	cosmetic	105	PURPLE TEA EXTRACT-WSPS	Food
73	ORYZA GABA™ GERM-P	Food	106	PURPLE TEA EXTRACT-WSPD	Food
74	ORYZA GABA™ EXTRACT-C	Food*cosmetic	107	PURPLE TEA EXTRACT-WSPDT	Food
75	ORYZA GABA™ EXTRACT-HC5	Food*cosmetic	108	PURPLE TEA EXTRACT-LC	cosmetic
76	ORYZA GABA™ EXTRACT-F95	Food	109	RED GINGER EXTRACT-P	Food
77	ORYZA GABA™ EXTRACT-F95R	Food	110	RED GINGER EXTRACT-WSP	Food
78	ORYZA PEPTIDE™-P60	Food	111	RED GINGER EXTRACT-LC	cosmetic
79	ORYZA PEPTIDE™ PC60	cosmetic	112	RED RICE EXTRACT-P	Food
80	ORYZA POLYAMINE™-LC(BG30)	cosmetic	113	RED RICE EXTRACT-PC	cosmetic
81	ORYZA POLYAMINE™-P	Food	114	RED RICE EXTRACT-WSP	Food
82	ORYZA PROTEIN™ -P80	Food	115	RED RICE EXTRACT-WSPC	cosmetic
83	ORYZA PERILLA SEED OIL	Food • cosmetic	116	RESVERATROL-P5	Food
84	PASSIONFLOWER EXTRACT-P	Food	117	RESVERATROL-PC5	cosmetic
85	PASSIONFLOWER EXTRACT-PC	cosmetic	118	Safleep™ (SAFFRON EXTRACT)-P	Food
86	PASSIONFLOWER EXTRACT-WSP	Food	119	SAKURA EXTRACT-P	Food
87	PASSIONFLOWER EXTRACT-WSPC	cosmetic	120	SAKURA EXTRACT-PC	cosmetic
88	PERILLA SEED EXTRACT-P	Food	121	SAKURA EXTRACT-LC	cosmetic
89	PERILLA SEED EXTRACT-PC	cosmetic	122	SAKURA SYRUP	Food
90	PERILLA SEED EXTRACT-PO	Food	123	SEABERRY EXTRACT-P	Food
91	PERILLA SEED EXTRACT-POC	cosmetic	124	SEABERRY EXTRACT-PC	cosmetic
92	PERILLA SEED EXTRACT-WSP	Food	125	SEABERRY EXTRACT-WSP	Food
93	PERILLA SEED EXTRACT-WSPC	cosmetic	126	SEABERRY EXTRACT-WSPC	cosmetic
			127	SEABERRY FRUIT OIL	Food·cosmetic



Products			Products		
128	FemBerry™ (STRAWBERRY GUAVA EXTRACT)-P	Food	151	ORYZA RICE GERM OIL	Food•cosmetic
129	STRAWBERRY SEED EXTRACT-P	Food	152	ORYZA OIL S-1	cosmetic
130	STRAWBERRY SEED EXTRACT-PC	cosmetic	153	ORYZA RICE BRAN OIL (こめサラダ油)	Food
131	LycoLift™(TOMATO SEED EXTRACT)-P	Food	154	ORYZA RICE BRAN OIL (オリザこめ油)	Food
132	LycoLift™(TOMATO SEED EXTRACT)-PC	cosmetic	155	ORYZA RICE BRAN OIL (オリザ白しめ油)	Food
133	LycoLift™(TOMATO SEED EXTRACT)-LC	cosmetic	156	ORYZA RICE BRAN OIL (こめ白絞油)	Food
134	TOMATO EXTRACT-P	Food	157	ORYZA RICE BRAN OIL (お米の糠からとれたサラダ油)	Food
135	ResoVine™(VINE TEA EXTRACT)-P	Food	158	ORYZA RICE BRAN OIL (お米のぬかからとれたサラダ油)	Food
136	ResoVine™(VINE TEA EXTRACT)-LC	cosmetic	159	ORYZA RICE BRAN OIL (玄米油)	Food
137	WATER SHIELD EXTRACT-P	Food	160	ORYZA RICE BRAN OIL (オリザの米油)	Food
138	WATER SHIELD EXTRACT-PC	cosmetic	161	ORYZA RICE BRAN OIL (こめ油)	Food
139	WATER SHIELD EXTRACT-WSP	Food	162	ORYZA DRIM V-50	Food
140	WATER SHIELD EXTRACT-WSPC	cosmetic	163	cosmeHerbest™ ORANGE	cosmetic
141	WHITE JELLY FUNGUS EXTRACT- P	Food	164	cosmeHerbest™ KIWI	cosmetic
142	WHITE JELLY FUNGUS EXTRACT- P C	cosmetic	165	cosmeHerbest™ SAKURA	cosmetic
143	YUZU SEED EXTRACT-P	Food	166	cosmeHerbest™ SEABERRY	cosmetic
144	YUZU SEED EXTRACT-PC	cosmetic	167	cosmeHerbest™ STRAWBERRY	cosmetic
145	YUZU SEED EXTRACT-WSP	Food	168	cosmeHerbest™ NADESHIKO	cosmetic
146	YUZU SEED EXTRACT-WSPC	cosmetic	169	cosmeHerbest™ YUZU	cosmetic
147	YUZU SEED EXTRACT-PS20	Food	170	cosmeHerbest™ LITCHI	cosmetic
148	Zanthoxylum Bungeanum Oil (SalivaMoist <sup>TM</sup> ) -5	Food	171	cosmeHerbest™ PASSIFLORA	cosmetic
149	Zanthoxylum Bungeanum Oil (SalivaMoist <sup>™</sup> ) -P5	Food	172	cosmeHerbest™ JUNSAI	cosmetic
150	Zanthoxylum Bungeanum Oil (SalivaMoist™) -P10	Food	173	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,	Upper drain type 42 to 54-inch Various filters 3
	RUBBER	units Lower drain type 1 unit
Filter press, sparkler	SUS,	Filter chamber capacity 50 L to 200 L, all stainless steel
	CAST	available
	IRON	
Column centrifuge device	SUS	50 L 2 units, 500 L 1 unit
(column tower)		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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#### ■ Malaysia representative office

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#### ■Vietnam representative office

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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.





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ORYZA OIL & FAT CHEMICAL

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<sup>\*</sup>The content described in this catalog may be changed at any time.



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