Delekang

Specialized manufacturer
of botanical extracts

GMP / CEP / DMF / ISO
HACCP / Kosher / Halal

Index

Product list

given by
nature

Why choose us?

We foucus on few products

Ginkgo, green tea, rice bran are the only raw materials we are extracting from.
By focusing fewer products, we are able to:

1. continuously improve the quality
2. lower cost and thus lower price
3. supply large and stable quantity

Quality assurance

HACCP | GMP | CEP | ISO | DMF | Kosher | Halal

Sustainablity

We are proud to invite you to our green factory. The impact to the environment is always the key consideration when we develop and improve our products.

Capacity

Product	(t/yr.)	Product	(t/yr.)
Chlorophyllin Na-Cu	60	Green tea extract	400
EGCG	10	L-theanine	25
Ferulic acid	300	Phytosterol	200
Gamma oryzanol	150	Quinic acid	500
Ginkgolide (A/B/C)	0.5	Rice bran oil	100,000
Ginkgo biloba P.E.	600	Rice bran sterol	150
(water-soluble ginkgo biloba P.E. is also available)		Shikimic acid	400

Ginkgo Biloba Extract

Applications:

- Dietary supplement
- Pharmaceuticals
- Cosmetics

Functions:

- Cognitive health
- Vascular health
- Anti-oxidant

Highlights:

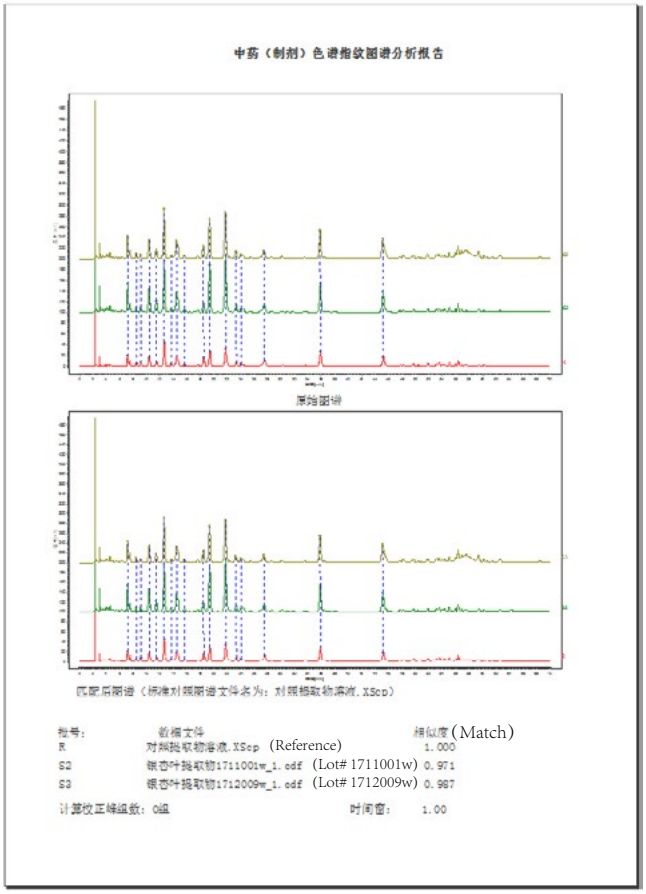
- Meets EC396 pesticide MRLs
- Ginkgolic acid free
- Low ginkgotoxin
- CFDA registered
- CEP
- DMF

Specs	CP	USP	EP	In-house
Flavonol glycosides	≥24.0%	22.0-27.0%	22.0-27.0%	22.0-27.0%
Terpene lactones	≥6.0%	5.4-12.0%	5.4-6.6%	5.4-12.0%
Bilobalide	/	2.6-5.8%	2.6-3.2%	2.6-5.8%
Ginkgolide A, B, C (sum)	/	2.8-6.2%	2.8-3.4%	2.8-6.2%
Quercetin:Kaempferol	0.8-1.2	0.8-1.2	0.8-1.2	0.8-1.2
Isorhamnetin:Quercetin	>0.15	>0.15	>0.15	>0.15
Ginkgolic acid	≤10mg/kg	≤5mg/kg	≤5mg/kg	<1mg/kg
Quercetin (free)	≤10.0mg/g	≤5.0mg/g	≤5.0mg/g	≤5.0mg/g
Kaempferol (free)	≤10.0mg/g	≤10.0mg/g	≤10.0mg/g	≤10.0mg/g
Isorhamnetin (free)	≤4.0mg/g	≤4.0mg/g	≤4.0mg/g	≤4.0mg/g
Rutin	≤4.0%	≤4.0%	≤4.0%	≤4.0%
Pesticide residue	/	USP<561>	EC396/2005	EC396/2005

Customizable specs:

- Pesticide free
- Ginkgolic acid free
- Flavonol glycosides content
- Terpene lactones content
- Water-solubility

Fingerprint analysis



Authenticity promise

In 2015, numerous batches ginkgo biloba extract were found adulterated. CFDA inspected most of ginkgo biloba extract manufacturers in China. Delekang was one of those few companies whose all 122 batches were authentic.[1]

With serious commitment to quality, we are striving to control the raw material and improve our process to produce greener and healthier products.

Reference

1. China Food and Drug Administration. (2015, June 22). Annunciation regarding the result of self-inspection on 90 ginkgo biloba extract ingredients and preparation manufacturers. Retrieved from http://samr.cfda.gov.cn/WS01/CL1872/122261.html

Quinic acid

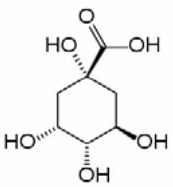
Applications:

- Feed additive

Functions:

- Anti-flammatory

- CAS No.: 77-95-2
- Chemical formula: $C_7H_{12}O_6$
- Molar mass: 192.17 g/mol
- Packaging: 25 kg/drum



Specifications	
Assay (on a dry basis)	≥ 98.0%
Specific rotation$[\alpha]_D^{25℃}$/。	-42 ~ -44
Loss on drying	≤ 1.0%
Residue on ignition	≤ 0.8%
Heavy metals	≤ 20ppm
Plant origin	Ginkgo
Appearance	White to yellow crystalline powder

Shikimic acid

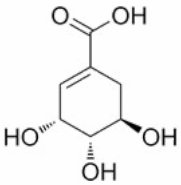
Application:

- Pharmaceuticals (base material of Oseltamivir)

Function:

- Anti-flammatory

- CAS No.: 138-59-0
- Chemical formula: $C_7H_{10}O_5$
- Molar mass: 174.15 g/mol
- Packaging: 25 kg/drum



Specifications	
Specific rotation$[\alpha]_D^{25℃}$/。	-175 ~ -184
Assay	≥98.0%
Heavy metals	≤20 ppm
Residue on ignition	≤0.8 %
Loss on drying	≤1.0%
Solubility	soluble in water (18% m/v)
Plant origin	Ginkgo

Green tea extract

Applications:

- Dietary supplement
- Cosmetics
- Food additive

Functions:

- Weight management[1]
- Anti-oxidant[2]

Customizables:

- Total polyphenols
- EGCG
- Caffeine free

Highlights:

- Better flavor
- Low caffeine
- Low pesticide residue

Specs	98/80/50	95/75/45	90/70/40	TP
Total polyphenols	≥98.0%	≥95.0%	≥90.0%	50 / 60 / 70%
Catechins	≥80.0%	≥75.0%	≥70.0%	/
EGCG	≥50.0%	≥45.0%	≥40.0%	/
Caffeine	≤ 2.0 %			
Loss on drying	≤ 5.0 %			
Residue on ignition	≤ 2.0 %			
Heavy metal	≤ 10.0 ppm			
Lead	≤ 5.0 ppm			
Arsenic	≤ 2.0 ppm			
Total bacteria count	≤ 1000 cfu/g			
Mold & Yeast	≤ 100 cfu/g			
E. coli	Negative			

Reference:

1. Abdul G Dulloo, Claudette Duret, Dorothée Rohrer, Lucien Girardier, Nouri Mensi, Marc Fathi, Philippe Chantre, Jacques Vandermander; Efficacy of a green tea extract rich in catechin polyphenols and caffeine in increasing 24-h energy expenditure and fat oxidation in humans, *The American Journal of Clinical Nutrition*, Volume 70, Issue 6, 1 December 1999, Pages 1040–1045.

2. Susanne M Henning, Yantao Niu, Nicolas H Lee, Gail D Thames, Rosario R Minutti, Hejing Wang, Vay Liang W Go, David Heber; Bioavailability and antioxidant activity of tea flavanols after consumption of green tea, black tea, or a green tea extract supplement, The American Journal of Clinical Nutrition, Volume 80, Issue 6, 1 December 2004, Pages 1558–1564.

L-theanine

Applications:

- Dietary supplement
- Food additive

Functions:

- Mental health[1,2]

Specifications	
Assay (customizable)	≥ 30 / 40 %
Heavy metal	≤10.0 ppm
Loss on drying	≤ 6.0 %
E.coli	Negative
Total bacteria count	≤1000 cfu/g
Mold & yeast	≤ 100 cfu/g
Appearance	Light yellow to light brown powder
Plant origin	Green tea

Reference:

1. Kimura, Kenta; Ozeki, Makoto; Juneja, Lekh Raj; Ohira, Hideki (2007). "L-Theanine reduces psychological and physiological stress responses". Biological Psychology. 74 (1): 39–45.

2. Owen, Gail N.; Parnell, Holly; De Bruin, Eveline A.; Rycroft, Jane A. (2008). "The combined effects of L-theanine and caffeine on cognitive performance and mood". Nutritional Neuroscience. 11 (4): 193–8.

EGCG

Applications:

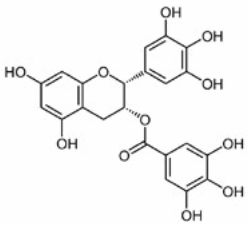
- Pharmaceuticals

Functions:

- Periodontitis

Specifications	
Assay (customizable)	≥ 90 / 95 / 98 %
Loss on drying	≤ 5.0%
Caffiene	≤ 0.1%
Total bacteria count	≤ 1000 cfu/g
Mold & Yeast	≤ 100 cfu/g
E. coli	Negative
Appearance	Light gray to light pink powder
Plant origin	Green tea

- CAS No.: 989-15-5
- Chemical formula: $C_{22}H_{18}O_{11}$
- Molar mass: 458.4 g/mol
- Packaging: 25 kg/drum



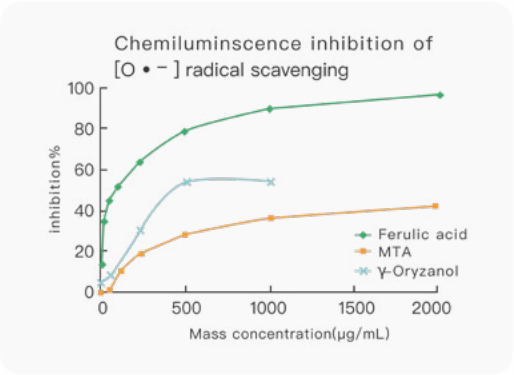
Ferulic Acid

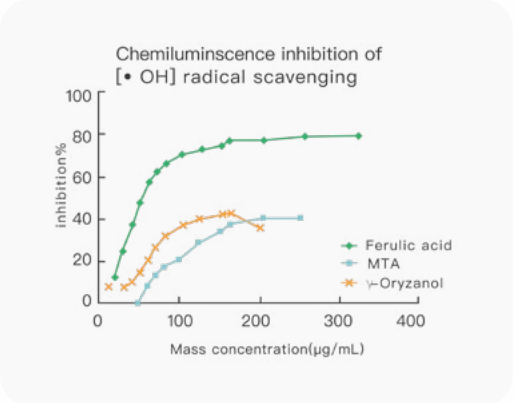
Applications:

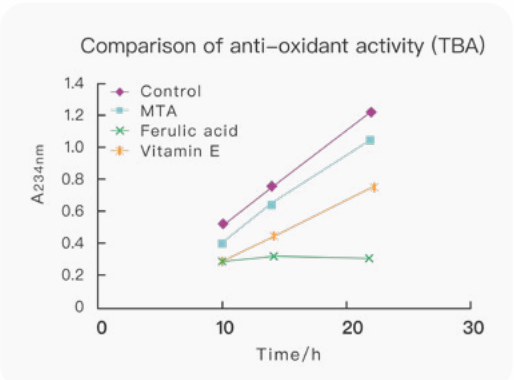
- Food additive
- Cosmetics

Functions:

- Flavor
- Anti-oxidant







Specifications	
Assay	≥99.0%
Loss on drying	≤0.5%
Residue on ignition	≤0.2%
Heavy metal	≤10 mg/kg
Arsenic	≤2 mg/kg
Melting point	170.0-174.0 °C
Plant origin	Rice

Highlights:

- Largest manufacturer
- Stable supply

Customizable:

- Sodium ferulate
  (for vascular health)

Reference:

GONG Yuan-sheng, & YAO Hui-yuan. (2002). The relationship between the anti antioxidative function of γ-Oryzanol and its molecular structure. *Journal of Wuxi University of Light Industry* (Vol.21, pp.439-442).

Wang, B. H.; Ou-Yang, J. P. (2005). "Pharmacological Actions of Sodium Ferulate in Cardiovascular System". *Cardiovascular Drug Reviews*. 23 (2): 161–172.

Eslami, S., Esa, N. M., Marandi, S. M., Ghasemi, G., & Eslami, S. (2014). Effects of gamma oryzanol supplementation on anthropometric measurements & muscular strength in healthy males following chronic resistance training. *The Indian Journal of Medical Research*, 139(6), 857–863.

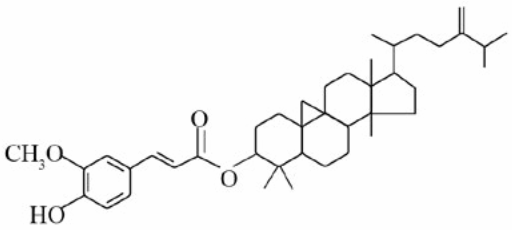
Gamma oryzanol

Applications:

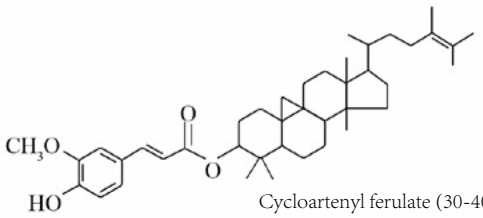
- Pharmaceuticals
- Cosmetics
- Food

Functions:

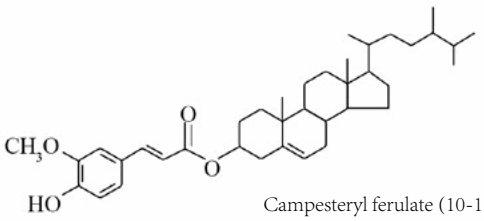
- Neuro medicine
- Anti-oxidant
- Sports Nutrition



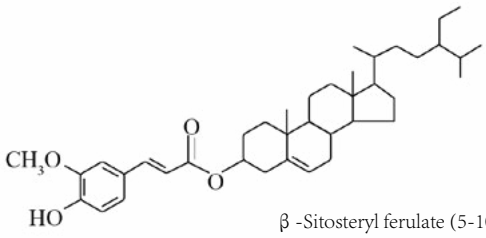
24-Methylene cycloartanyl ferulate (35-40%)



Cycloartenyl ferulate (30-40%)



Campesteryl ferulate (10-15%)



β -Sitosteryl ferulate (5-10%)

Specifications	
Assay	97.0-103.0%
Loss on drying	≤0.8%
Residue on ignition	≤0.2%
Heavy metal	≤10 mg/kg
Arsenic	≤2 mg/kg
Solubility	Soluble in acetone, slightly soluble in n-heptane, insoluble in water
Plant origin	Rice

Highlights:

- GMP
- Largest manufacturer
- Stable supply

Phytosterol

Applications:

- Food additive
- Dietary supplement
- Pharmaceuticals

Functions:

- Heart health[1,2]
- Vascular health[1,3]

Highlights:

- Low brassicasterol
- Non-GMO

Customizables:

- Total sterol
- Beta-Sitosterol

Specifications	
Total sterol	≥90.0%
β-Sitosterol	≥50.0%
Loss on drying	≤4.0%
Residue on ignition	≤0.5%
Arsenic	≤2 mg/kg
Heavy metal	≤10 mg/kg
Solubility	Soluble in hot ethanol, slightly soluble in ethanol, insoluble in water.
Plant origin	Rice

Reference:

1. European Food Safety Authority. Scientific Opinion of the Panel on Dietetic Products Nutrition and Allergies on a request from Unilever PLC/ NV on Plant Sterols and lower/reduced blood cholesterol, reduced the risk of (coronary) heart disease. The EFSA Journal (2008) 781, 1 – 12.

2. U.S. Food & Drug Administration. Health claims: plant sterol/stanol esters and risk of coronary heart disease (CHD). 21 C.F.R. § 101.83 (2017, April 1).

3. Health Canada. (2010, May 26). Plant Sterols and Blood Cholesterol Lowering.

Rice bran sterol

Applications:

- Pharmaceuticals

Functions:

- Periodontitis

Specifications	
Total sterol	≥64.0%
Unsaponificable matter	≥90.0%
Saponification value	≤6.0 mg KOH/g
Acid value	≤4.5 mg KOH/g
Loss on drying	≤1.8%
Aerobics	≤800 cfu/g
Mold & Yeast	≤50 cfu/g
E. coli	Negative

Rice bran oil

Applications:

- Cooking oil
- Food additive
- Dietary supplement
- Cosmetics

Functions:

- Vascular health[1]
- Heart health
- Women health

Highlights:

- Winterized, dewaxed, deodorized, bleached.
- No anti-oxidant added
- No anti-foaming agent

Reference:

1. Wilson, T. A., Nicolosi, R. J., Woolfrey, B., & Kritchevsky, D. (2007). Rice bran oil and oryzanol reduce plasma lipid and lipoprotein cholesterol concentrations and aortic cholesterol ester accumulation to a greater extent than ferulic acid in hypercholesterolemic hamsters. *The Journal of nutritional biochemistry*, 18(2), 105-112.

Specs	Grade I	Grade IV
Color Lovibond (cell 5 ¼")	Yellow ≤35 Red ≤3.5	-
Color Lovibond (cell 1")	-	Yellow ≤35 Red ≤6.0
Acid value (mg KOH/g)	≤0.2	≤3.0
Peroxide value (mmol/kg)	≤5.0	≤7.5
Solvent residue (mg/kg)	Negative	≤50
Soap content (%)	Negative	≤0.03
Impurities (%)	≤0.05	≤0.05
Moisture and volatiles (%)	≤0.05	≤0.20
Smoke point (°C)	≥215	-
Cold test (hour @0°C)	≥5.5	-
Iodine value (g/100g)	92-115	
Fatty acid	Codex Alimentarius Stan 2010	

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