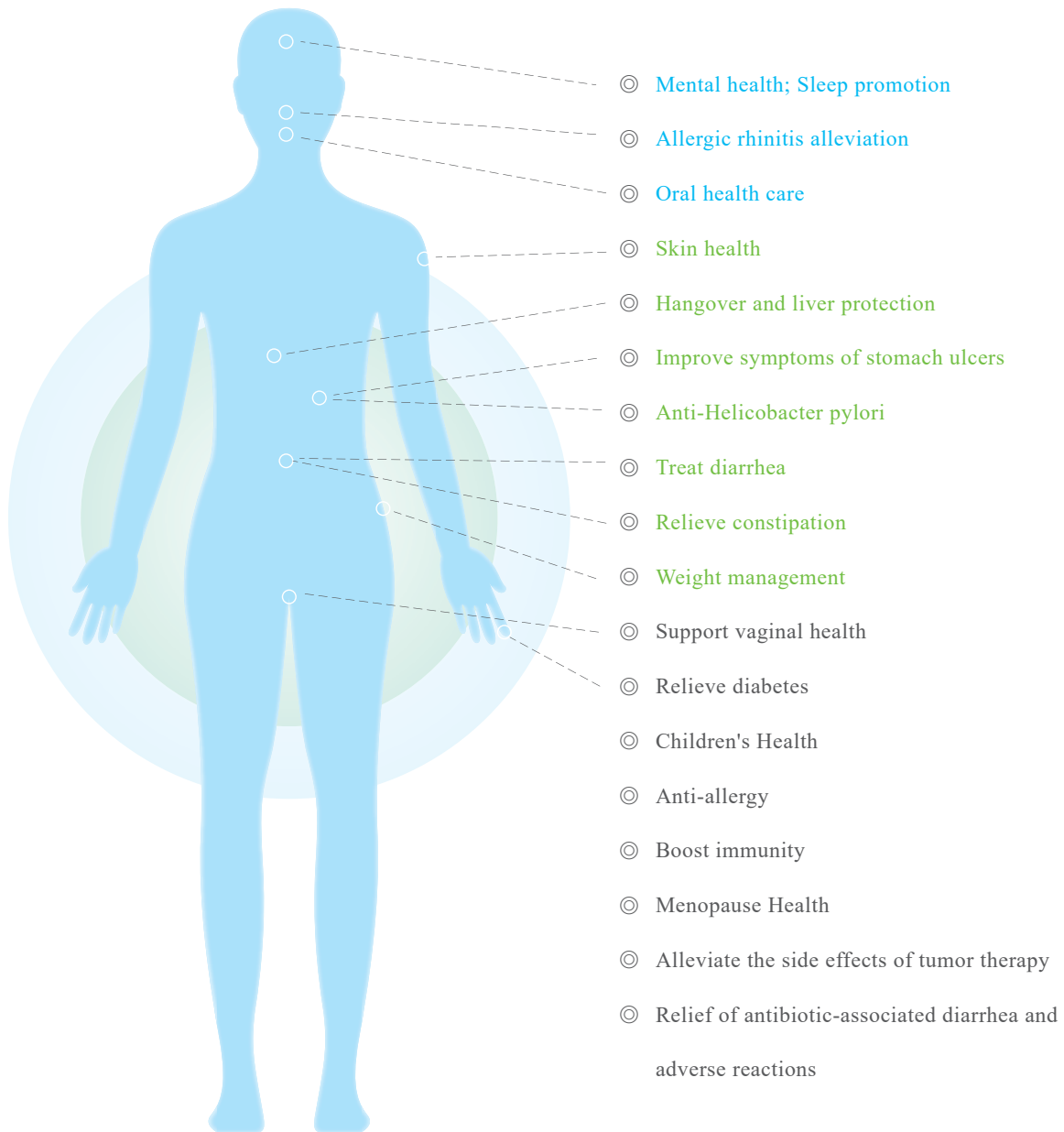


Health Applications of Probiotic Powder



Popular tracks of health application



Gastrointestinal health (Protect the stomach mucosa, moisten bowel, improve immunity)

Strains: *Lactobacillus acidophilus* LA-G80, *Bifidobacterium animalis* subsp. *lactis* BL-G101, *Bifidobacterium bifidum* BB-G90, *Bifidobacterium longum* subsp. *longum* BL-G301, *Lactiplantibacillus plantarum* ZJUF T34, *Lactiplantibacillus plantarum* Lp-G18

Literature: The relaxing bowel effect of composite probiotic powder MIX -G200. Chinese Journal of Microecology, Jun.2011, VoL23 No.6
Evaluation of the health benefits of consumption of extruded tannin sorghum with unfermented probiotic milk in individuals with chronic kidney disease. Food Research International Volume 107, May 2018, Pages 629-638



Female intimate care (Inhibition of *Gardnerella vaginalis*, *candida* and other pathogenic bacteria)

Strains: *Lactobacillus crispatus* LC-G22, *Lactobacillus gasseri* LG-G12, *Lactobacillus johnsonii* LJ-G55, *Lactobacillus acidophilus* LA-G80, *Lacticaseibacillus rhamnosus* Lr-G14

Literature: AVALIAÇÃO IN VITRO DA AÇÃO MICROBICIDA DE LACTOBACILLUS SPP. SOBRE CANDIDA SPP. 2020



Oral care (Improve breath, inhibit oral pathogens, reduce oral inflammation)

Strains: *Ligilactobacillus salivarius* LS-G60, *Lacticaseibacillus paracasei* LpC-G110

Literature: Are *Lactobacillus salivarius* G60 and inulin more efficacious to treat patients with oral halitosis and tongue coating than the probiotic alone and placebo? A randomized clinical trial. Journal of Periodontology .2020, 91,6: 775-783



Anti-*Helicobacter pylori* (Inhibit *Helicobacter pylori*)

Strains: *Lactobacillus acidophilus* LA-G80, *Bifidobacterium bifidum* BB-G90, *Limosilactobacillus reuteri* LR-G100

Literature: Phenotype investigation on a strain of *Lactobacillus reuteri*. China dairy industry. 2012,03



Liver care (Protective effect on acute alcoholic gastric mucosa injury and chemical liver injury)

Strains: *Lactobacillus acidophilus* LA-G80, *Bifidobacterium bifidum* BB-G90

Literature: Function experiment report of health food in China



Antiallergy (Prevent gluten allergy (celiac disease))

Strains: *Bifidobacterium animalis* subsp. *lactis* BL-G101, *Bifidobacterium bifidum* BB-G90, *Bifidobacterium longum* subsp. *longum* BL-G301, *Lactobacillus acidophilus* LA-G80

Literature: Digestion of Intact Gluten Proteins by *Bifidobacterium* Species: Reduction of Cytotoxicity and Proinflammatory Responses. J. Agric. Food Chem. 2020, 68, 4485-4492



Blood glucose management (Improve metabolic syndrome, reduce blood fat and blood sugar)

Strains: *Bifidobacterium animalis* subsp. *lactis* BL-G101, *Lactiplantibacillus plantarum* Lp-G18, *Lacticaseibacillus paracasei* LpC-G110, *Bifidobacterium bifidum* BB-G90, *Bifidobacterium longum* subsp. *longum* BL-G301, *Lactobacillus acidophilus* LA-G80, *Lactobacillus gasseri* LG-G12

Literature: Rationale and Design of a Randomized Controlled Trial to Evaluate the Effects of Probiotics during Energy Restriction on Blood Pressure, Body Composition, Metabolic Profile and Vascular Function in Obese Hypertensive Individuals. Artery Research Vol. 26(2); June (2020)
Potential anti-aging effects of fermented wheat germ in aging mice. Food Bioscience, <https://doi.org/10.1016/j.fbio.2021.101182>



Weight management (Adjuvant treatment of obesity, relieve weight gain)

Strains: *Lactiplantibacillus plantarum* ZJUF T17, *Lactiplantibacillus plantarum* ZJUF T34, *Lactobacillus acidophilus* LA-G80, *Lactobacillus gasseri* LG-G12, *Bifidobacterium animalis* subsp. *lactis* BL-G101, *Lactiplantibacillus plantarum* Lp-G18, *Bifidobacterium longum* subsp. *longum* BL-G301

Literature: Antibiotic Followed by a Potential Probiotic Increases Brown Adipose Tissue, Reduces Biometric Measurements, and Changes Intestinal Microbiota Phyla in Obesity. Probiotics and Antimicrobial Proteins, <https://doi.org/10.1007/s12602-021-09760-0>

Weight-Reducing Effect of *Lactobacillus plantarum* ZJUF T17 Isolated from Sourdough Ecosystem. Nutrients 2020,12,977

Lactobacillus plantarum helps to suppress body weight gain, improve serum lipid profile and ameliorate low-grade inflammation in mice administered with glycerol monolaurate. Journal of Functional Foods 53 (2019) 54–61

ODM | CDMO

BioGrowing provides customized and high-quality solutions.

BioGrowing is one of the largest probiotics production bases in Asia.

- ◎ 100,000 grade clean production workshop
- ◎ More than 10 sets of intelligent production system
- ◎ Lactic Acid bacteria freeze-dried powder 600 tons/year



- ◎ Advanced equipment: low-temperature vacuum freeze dryer, freezing high-speed centrifuge, automatic fermentation system.
- ◎ Patented technology: high-density fermentation technology, high stability patent embedding protection technology, high activity freeze-dried bacteria powder technology, cryogenic granulation technology.



Professional R&D



Multiple recipes



Lean production



Packaging customization



Full control



Qualification support

Package Systems

● Capsules

Types		Descriptions	
Capsule shell			Vegetable capsules (HPMC)
			Acid-resistant vegetable capsules
			Gelatin capsules
Outer packing	Bottles		PET bottles
			Glass bottles
	Blisters	Size 00#	Cold forming Alu-Alu blisters (500-700mg)
		Size 0#	PVC/PVDC blisters (About 500mg)
		Size 1#	Alu-Alu blister (320-380mg)
	Size 2#	Alu-Alu blister or bottles (220-250mg)	

* Other capsule sizes are available on inquiry.



Cold forming Alu-alu blisters (95×146 mm)



PVC/PVDC (62×95 mm)



Alu-alu blister (78×130 mm)



Capsule bottle

Package Systems

● Sachets

Packing weight	Type	Size	Packing material
1.0~3.5 gram	Back-sealed sachets	110mm*25mm	PE/Alu/PET
	Three-sides sealed rectangular sachet	75mm*50mm	
3.5~5.0 gram	Back-sealed sachets	120mm*28mm	
	Three-sides sealed rectangular sachet	85mm*50mm	
5.0~10.0 gram	Back-sealed sachets	145mm*28mm	
	Three-sides sealed rectangular sachet	100mm*50mm	
20~40 gram	Back-sealed sachets	180mm*70mm	



Stickpack (jagged edge)



Stickpack (round edge)



Three-sides sealed rectangular sachet

● Shaped bottle

Specification: 2-3g

Diameter: 30mm, bottle height: 18mm (can be customized)



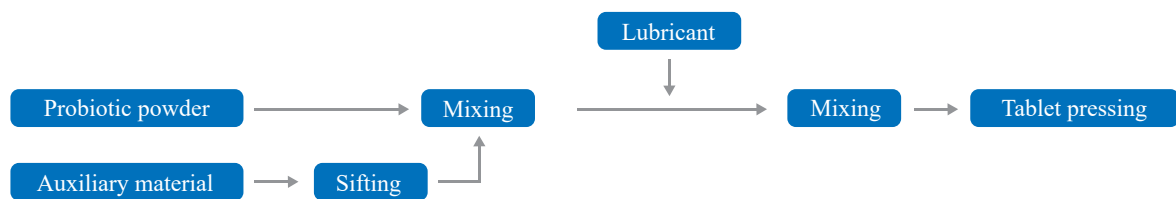


Application form

● Tablets

Probiotic tablets are flaky preparations made by mixing probiotic powder and excipients evenly.

● Process flow



● Technical parameter

The punching die count	31
Adjustable pressure sheet	100 kN
Adjustable pressure sheet diameter	25 mm
Adjustable filling depth	19 mm
Adjustable tablet thickness	10 mm
Adjustable production capacity	85000 tablets/h

● Packaging

Circular tablet: 1.0-1.5g/tablet, one in each bag
 Oval tablet: 1.0-1.2g/tablet, 10 tablets per blister



● Application



Tablet candy



Chewing tablets



Buccal tablets

Finished Products

Probiotic Capsules



Female Care Capsules

- Spec:
- 10 Billion,
 - 500mg capsule



IBS Care Capsules

- Spec:
- 30 Billion,
 - 500mg capsule



Anti-Anxiety Capsules

- Spec:
- 10 Billion,
 - 500mg capsule



Vaginbiol Capsules

- Spec:
- 20 Billion,
 - 500mg capsule



Dynabiotics Capsules

- Spec:
- 10 Billion,
 - 500mg capsule



Biotic-Restore Capsules

- Spec:
- 20 Billion,
 - 500mg capsule



Omebiotix Capsules

- Spec:
- 40 Billion,
 - 500mg capsule



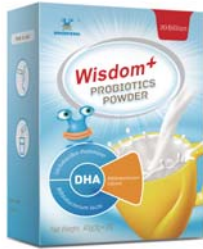
Biotic Plus Capsule

- Spec:
- 20 Billion,
 - 250mg capsule

Stated health benefits of these products have not been evaluated by the Food and Drug Administration Authority. These products are not intended to diagnose, treat, cure, or prevent any disease.

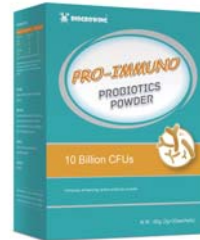
Finished Products

Probiotic Solid Drinks



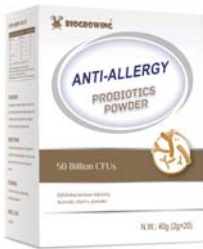
Wisdom+ Live Probiotic Powder

- Spec:
- 20 Billion,
 - 2.0g sachet



Pro-Immuno Live Probiotic Powder

- Spec:
- 10 Billion,
 - 2.0g sachet



Anti-allergy Live Probiotic Powder

- Spec:
- 50 Billion,
 - 2.0g sachet



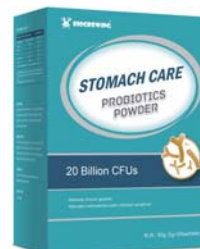
Vaginbiol Live Probiotic Powder

- Spec:
- 50 Billion,
 - 3.0g sachet



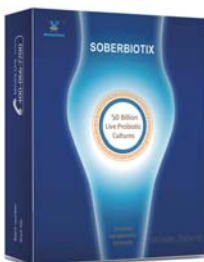
Intest Booster Live Probiotic Powder

- Spec:
- 30 Billion,
 - 2.0g sachet



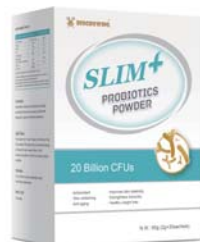
Stomach Care Live Probiotic Powder

- Spec:
- 20 Billion,
 - 2.0g sachet



Soberbiotix Probiotic Powder

- Spec:
- 50 Billion,
 - 2.0g sachet



Slim+ Live Probiotic Powder

- Spec:
- 20 Billion,
 - 2.0g sachet

Stated health benefits of these products have not been evaluated by the Food and Drug Administration Authority. These products are not intended to diagnose, treat, cure, or prevent any disease.

BioGuard® Starter Cultures (For Industrial Use)

Direct Vat Set cryogenic culture

The product categories include Direct Vat Set cultures and Direct Vat Set cryogenic cultures.

Direct Vat Set cryogenic cultures is characterized by stable fermentation time and high viability and is superior to traditional Direct Vat Set in many aspects, such as quick dissolution, convenient operation, and low cost.

Three series of starter cultures



DVS Starter Culture

Used in yogurt, probiotic yogurt, lactic acid bacteria beverage, small fresh cheese, sour cream, etc.

Thermophilic dairy starter cultures

GF 231 / GF 468 / GF 479 / GF 655 / GF 665
GF 669 / GF 686 / GF 867 / GF 868 / GF 967

Mesophilic dairy starter cultures

GF 218 / GF 227 / GF 927

Probiotic yoghurt & beverage starter cultures
GFAB 101



DVS Plant Based Starter Culture

Used in fermented fruit and vegetable juices, pickles, fermented soy milk, fermented plant beverages, etc.

Plant based starter cultures

GS 485 / GC101 / NP108



DVS Probiotic Starter Culture

Fermented products strengthen the functions of probiotics.

Drinking yoghurt starter cultures

GF 101 / GF 103 / GF 105 / GF 201

Biological protective agents

GP 101



BIOGROWING CO., LTD.

No. 10666 Songze Road, Qingpu District, Shanghai, 201700, China

T: + 86 21 3920 5777

E: cs@biogrowing.com

W: www.biogrowing.com