

CABIO 嘉必优®

中国科创板上市公司 股票代码：688089

CABIO 嘉必优®

嘉必优生物技术(武汉)股份有限公司
CABIO Biotech(Wuhan) Co., Ltd.

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嘉必优官微

生物科技滋养生命
Biotechnology Nourishes Life



嘉必优葛店工厂 | CABIO's Gedian Factory



嘉必优江夏工厂 | CABIO's Jiangxia Factory

嘉必优生物技术(武汉)股份有限公司

嘉必优生物技术(武汉)股份有限公司是一家以生物科技为立足之本的高新技术企业，成立于2004年9月，是湖北省首家科创板上市企业。

嘉必优拥有完整的技术产业链转化平台，涵盖了菌种定向选育、细胞精细调控、高效分离精制、制剂、定向传输及高通量检测分析等技术模块，为全球营养与健康领域的客户提供高品质的功能性原料与创新的解决方案。公司先后实现了花生四烯酸(ARA)、二十二碳六烯酸(DHA)、β-胡萝卜素(BC)及N-乙酰神经氨酸(SA, 燕窝酸)等多个产品的产业化。产品广泛应用于人类营养、动物营养以及个人护理等领域。



CABIO Biotech (Wuhan) Co., Ltd.

CABIO Biotech (Wuhan) Co., Ltd. ("CABIO" for short), established in September 2004, is a high-tech enterprise underpinned by biotechnology and the first company listed on the Science and Technology Innovation Board (stock code: 688089) in Hubei Province.

After nearly two decades of development, CABIO has built a complete technology transformation platform of industry chain, including targeted strain selection, cell fine regulation, efficient separation & refining, biological agents, targeted transmission, high-throughput detection & analysis, among other technology modules to provide quality functional raw materials and innovative solutions for customers in the field of global nutrition and health. We have achieved the industrialization of Arachidonic acid (ARA), Docosahexaenoic acid (DHA), β-carotene (BC), N-acetylneuraminic acid (SA, sialic acid) and other products. Our products are widely applied in human nutrition, animal nutrition, and personal care.

企业价值观

诚信：诚信是我们持续经营的基石。

我们以诚信经营为本，每一位员工都恪守“公平竞争、诚信经营”的行为准则，致力于社会责任、环境保护和商业活动的平衡发展。

合作：合作是我们打造共赢生态的最佳通道。

我们与所有的利益相关者真诚合作，实现资源共享、能力互通、共同发展，营造良性健康的产业生态，为全球范围内的客户、合作伙伴、股东、员工以及社会创造价值。

开放：开放是我们不断成长的经营理念。

我们始终站在全球化的视角，向不同国家和地区、不同行业领域、不同专业背景的企业和人才学习，整合全球优秀资源，聚集全球优秀人才，构建一个开放的业务和人才发展平台。

创新：创新是我们保持发展的活力源泉。

科技是嘉必优的核心驱动力，嘉必优将始终瞄准前沿生物科技，坚持基础研究，持续挖掘生物科技领域的无限可能，通过科技创新为公司提供源源不断的发展动力。



Corporate Values

Integrity: Integrity is the cornerstone of our ongoing business.

We operate with integrity as the foundation. Every employee abides by the code of conduct of "fair competition, honest operation" and commits to the balanced development of social responsibility, environmental protection and business activities.

Cooperation: Cooperation is the best channel to create win-win ecology.

We sincerely cooperate with all stakeholders to achieve resource sharing, capability exchange and common development, create a healthy industrial ecology, and create value for customers, partners, shareholders, employees, and the society worldwide.

Opening-up: Opening-up is the operation philosophy of our constant growth.

We always stand in the perspective of globalization, learn from enterprises and talents from different countries and regions, different industries and different professional backgrounds, integrate global excellent resources, gather global outstanding talents, and build an open platform for business and talent development.

Innovation: Innovation is the lifeblood of our development.

Science and technology are the core driving force of CABIO. We will always aim at cutting-edge biotechnology, adhere to basic research, continue to explore the infinite possibilities in the field of biotechnology, and provide continuous development power for the company through scientific and technological innovation.

企业责任

嘉必优积极响应国家关于“碳达峰、碳中和”的战略目标，将绿色发展融入到企业的发展战略中，走低碳环保、清洁生产、绿色制造的道路，严格遵守各项环保法律法规，使绿色环保理念体现在企业日常生产经营中。

嘉必优作为中国微生物油脂产业的开拓者，始终将行业领域领航与探索视为己任，不断发展教育事业并致力于为社会培养行业人才。公司在中国科学院合肥物质科学研究院设立“嘉必优”奖学金，奖励优秀的科研人才。

嘉必优积极参与并组织营养健康社区宣传活动，持续开展营养健康的知识讲解与宣传，

并获得“食品药品科普宣传教育基地”等奖项和荣誉称号，始终坚持“科学的良知，企业的良心”，切实履行企业社会责任，树立负责任的企业社会形象。



Corporate Responsibility

In active response to the national strategic goal of "carbon peak, carbon neutrality", CABIO has integrated green development into its development strategy, followed the road of low-carbon environmental protection, clean production and green manufacturing, and strictly complied with various environmental protection laws and regulations, so that the concept of green environmental protection is reflected in the daily production and operation of the enterprise.

As pioneer in the domestic microbial oils industry, CABIO always regards the industry leadership and exploration as its duty, constantly develops education and is committed to cultivating talents for the society. The company has set up "CABIO" Scholarship in Hefei Institute of Physical Science, Chinese Academy of Sciences to reward outstanding scientific research talents.

CABIO actively participates in and organizes nutrition & health community publicity activities, continuously carries out nutrition and health knowledge explanation and publicity. It has won the "Food and Drug Science Popularization and Education Base" and other awards and honorary titles. It always adheres to the "scientific conscience, corporate conscience", earnestly fulfill corporate social responsibility, and establish a responsible corporate social image.

技术与研发

嘉必优是中国微生物油脂工业化生产的领先企业，建成了完善的生物合成营养素产业化平台，该项目被国家相关部门鉴定为“国内首创、国际领先”。嘉必优参与的“功能性脂质制备”技术在2014年获得湖北省科技进步奖一等奖，2016年获得国家科技进步二等奖。

嘉必优在微生物油脂领域拥有多项专利，是国家863科技攻关计划（2014年）“花生四烯酸发酵生产关键技术创新及工艺集成”项目的承担单位，以及“二十二碳六烯酸发酵生产的关键技术创新及产业化”项目的参与单位。2013年嘉必优研发中心被认定为“湖北省营养化学品生物合成工程技术研究中心”，2015年嘉必优参与成立了“湖北省生物制造产业技术创新联盟”。

经过二十年积累，嘉必优形成了领先的生物制造产业化平台技术。在现有研发平台基础上，嘉必优积极布局合成生物学，建立合成生物学实验室并启动了一批具有技术前瞻性和市场潜力的研究项目，并对外广泛开展合成生物学及其上下游产业技术的交流与合作，合作对象包括中科院、农科院、天津大学和浙江大学等知名科研机构。以此为基础，嘉必优将建成“武汉合成生物创新中心”，助力打造国家中部地区的合成生物产业优势区域。



Technology and R&D

CABIO is a leading enterprise in industrial production of microbial oils in China. It has set up a comprehensive industrialization platform for biosynthetic nutrients. The project was identified as “the first in China, the leading in the world”. The “functional lipid production” technology that CABIO participated in won the first prize of Hubei Science and Technology Progress Award in 2014 and the second prize of National Science and Technology Progress Award in 2016.

CABIO has a number of patents in the field of microbial oil. It is the undertaking unit of the project "Innovation and Process Integration of Key Technologies of Arachidonic acid Fermentation Production" in the National 863 Science and Technology Research Program (2014), and the participating unit of the project "Innovation and Industrialization of Key Technologies of docosahexaenoic acid Fermentation Production". In 2013, CABIO R&D Center was recognized as "Hubei Engineering and Technology Research Center of Nutrient Chemical Biosynthesis". In 2015, CABIO participated in the establishment of "Hubei Province Biological Manufacturing Industry Technology Innovation Alliance".

After 20 years of accumulation, CABIO has formed a leading biological manufacturing industrialization platform technology. On the basis of the existing research and development platform, CABIO actively layouts synthetic biology, sets up a synthetic biology laboratory and launches a number of research projects with technical foresight and market potential, and carries out extensive foreign exchanges and cooperation on synthetic biology and its upstream and downstream industrial technology with some well-known research institutions such as Chinese Academy of Sciences, Chinese Academy of Agricultural Sciences, Tianjin University and Zhejiang University. Based on this, CABIO will built the Wuhan Synthetic Biology Innovation Center, to propel central China to be an advantaged region in synthetic biology industry.

食品安全和质量管理

食品安全是嘉必优企业伦理的道德基石，食品安全质量管理体系的保持和持续改进是产品安全保证的基础，嘉必优始终坚持执行全球最严格的食品安全标准，来保障客户和消费者的根本利益。

嘉必优追踪全球在质量管理和食品安全方面最新要求和前沿技术，以ISO9001质量管理体系和FSSC 22000、GMP为基础，吸收了众多国际著名婴幼儿奶粉厂商的丰富经验，建立了严格的质量和食品安全管理体系，并在国内同行中率先通过了满足全球最高食品安全要求的FSSC22000管理体系认证。同时，嘉必优检测中心获得中国合格评定国家认可委员会（CNAS）认可，具备国家及国际认可的ISO/IEC17025体系管理水平和检测能力。

嘉必优领衔起草了《食品安全国家标准 食品添加剂 花生四烯酸油脂（发酵法）》和《食品安全国家标准 食品添加剂 二十二碳六烯酸油脂（发酵法）》等国家标准。

嘉必优参与制定的“QB/T 5631-2021花生四烯酸油脂粉”和“QB/T5632-2021二十二碳六烯酸油脂粉”两项行业标准。



国际认证认可



Food safety & Quality assurance

Food safety is the moral foundation of CABIO's corporate ethics, and the maintenance and continuous improvement of food safety and quality management system is the basis of product safety assurance. CABIO persists in the strictest international food safety standards to safeguard the fundamental interests of customers and consumers.

CABIO is constantly following the latest requirements and frontier technologies in quality control and food safety. With ISO9001:2015, ISO22000: 2018 and GMP as the basis, CABIO has introduced rich experience from a lot of famous international infant formula manufacturers, established strict quality and food safety management systems, and taken the lead in passing the certification of FSSC22000 management system which is the most stringent in the world among domestic counterparts. At the same time, CABIO testing center, with the national and international recognized ISO/IEC 17025 system management level and testing ability, has been recognized by China National Accreditation Service for Conformity Assessment (CNAS).

CABIO led the compiling of National Food Safety Standard for Uses of Food Additives-ARA (fermentation) and National Food Safety Standard for Uses of Food Additives-DHA (fermentation).

Two industry standards, "QB/T 5631-2021 ARA Oil Powder" and "QB/T 5632-2021 DHA Oil Powder", were developed by CABIO.



业务领域

嘉必优坚持以科技创新为核心驱动力，在人类营养、动物营养以及个人护理领域为客户提供优质的产品和创新的解决方案，实现高质量的增长和可持续发展，为包括客户、员工、股东和所有相关方创造长期价值。

人类营养

成为全球婴幼儿配方奶粉供应链的核心供应商，保持世界高水准的食品安全和供应链管理能力和能力，并以此延伸至功能性食品及特殊医学食品等领域，提供更多的功能性营养素产品和解决方案。

动物营养

从人类脂质营养起步，聚焦于脂肪酸的改造与创制以及结构平衡，致力于为畜牧渔业包括宠物领域的客户提供饲用级脂肪酸精准平衡的解决方案。

个人护理

以前沿的生物技术为核心，结合离子束生物技术、微生物育种和发酵工程等手段，持续专注于美丽与健康产业，为客户开发创新性的化妆品原料及完整的应用技术解决方案，为个人护理领域提供创新性功能原料及解决方案。

合成生物

积极布局合成生物学，建立合成生物学实验室，共建武汉合成生物创新中心，通过上下游产业技术的交流与合作，研究技术前瞻性和市场潜力项目，立足武汉打造全球合成生物学产业生态高地。

Business and Service

With scientific and technological innovation as the key driving force, we provide customers with quality products and creative solutions in the field of human nutrition, animal nutrition and personal care, achieve high quality growth and sustainable development, and create long-term value for customers, employees, shareholders and other stakeholders.

Human Nutrition

We aim to become a core global supplier in the supply chain of baby & infant formulas, maintain world-class food safety and supply chain management, extend to functional food and FSMP (food for special medical purpose), and provide more functional nutrient products and solutions.

Animal Nutrition

Starting from human lipid nutrition, the company focuses on the transformation, creation, and structural balance of fatty acids, and is committed to providing customers in the field of animal husbandry, fishery, and pet with accurate balanced solutions of feeding-grade fatty acids.

Personal Care

With cutting-edge biotechnology as the core, combined with ion beam biotechnology, microbial breeding, and fermentation engineering, we continue to focus on the beauty and health industry, develop innovative cosmetics raw materials and complete application technology solutions for customers, and provide innovative functional raw materials and solutions for the field of personal care.

Synthetic Biology

We will actively layout synthetic biology laboratory, establish synthetic biology laboratory, and jointly build Wuhan Synthetic Biology Innovation Center. Through the upstream and downstream industrial technology exchanges and cooperation, we will study the projects with forward-looking technology and market potential and build the ecological highland of the global synthetic biology industry based on Wuhan.



嘉必优ARA产品系列

嘉必优®ARA油脂 (40%-45%)

嘉必优®ARA微胶囊粉剂 (10%-20%)

嘉必优®ARA菌粉 (1-20%)

嘉必优® ARA

——国际水准 领跑产业

嘉必优ARA是基于发酵工艺获得的一种微生物油脂，在中国同类产品中率先通过欧盟Novel food和美国FDA GRAS的审核，已获得了国内外众多顶级婴幼儿配方食品厂商的认可和使用的。产品的食品安全和质量可控、可追溯。

嘉必优ARA包括油脂、微胶囊粉剂和菌粉三个产品系列。其中，油脂和微胶囊粉剂主要应用于婴幼儿配方食品、液体乳、酸奶和膳食补充剂，同时还可以应用于食用调和油、糖果及巧克力、含乳饮料、烘焙食品等多种健康食品。粉剂产品可以提供全乳、无乳、有机、无糖等特殊需求配方。嘉必优ARA适用于各种生产工艺，并具有良好的稳定性和滋气味，为应用产品带来可靠的货架期和风味体验。嘉必优ARA菌粉可用于动物营养领域。

CABIO ARA

Industrial pioneer of international standard

CABIO ARA is a microbial oil obtained based on fermentation process. It is the first of its kind in China to pass the review of EU Novel food and US FDA GRAS, and it has been recognized and used by many top infant formula food manufacturers at home and abroad. The food safety and quality of the products are controllable and traceable.

CABIO ARA has three product lines, including oil, microcapsule powder (MSP), and fungus powder. Oil and microcapsule powder are mainly used in infant formula food, liquid milk, yogurt, and dietary supplements, and can also be used in edible mixed oil, candies and chocolate, dairy drinks baked food and other healthy food. Powder products can be supplied with whole milk, milk free, organic, sugar free and other special needs formula. CABIO ARA is suitable for various production processes and has good stability and aroma, which brings reliable shelf life and flavor experience to the applied products. ARA fungus powder can be used in animal nutrition.

ARA



嘉必优藻油DHA产品系列

嘉必优® 藻油DHA油脂 (35-55%)

嘉必优® 藻油DHA粉剂 (7-20%)

诺优滋® 原生藻油DHA (40%)

诺瑞滋® 有机藻油DHA (40%)

嘉必优® DHA藻粉 (1-18%)

嘉必优® 藻油DHA

——黄金品质 应用无限

嘉必优藻油DHA是基于发酵工艺，利用单细胞藻类合成的一种Omega-3多不饱和脂肪酸油脂，生产全过程均处在密闭、洁净环境中，已经通过美国FDA GRAS的审核，并取得美国有机认证，食品安全和质量可控、可追溯，产出不受资源限制，是一种绿色、可持续的供应链方式。

嘉必优藻油DHA包括油脂、微胶囊粉剂和藻粉三个产品系列。其中，油脂和微胶囊粉剂主要应用于婴幼儿配方食品、膳食补充剂等领域，也常用于调制乳粉、软胶囊、固体饮料、滴剂、软糖、特膳食品、特医食品、烘焙食品、加工肉制品等健康食品，以提升其健康价值。嘉必优DHA藻粉可用于动物营养领域。

CABIO® DHA algal oil

Premium quality for numerous applications

CABIO DHA algal oil is an omega-3 polyunsaturated fatty acid synthesized by single-cell algae based on fermentation process. The whole production process is in a closed and clean environment. It has passed the review of US FDA GRAS and obtained the organic certification of the United States. Food safety and quality are controllable and traceable. The output is not limited by resources, which is a green and sustainable way of supply chain.

CABIO DHA has three product lines, including oil, microcapsule powder (MSP), and algae powder. Oil and microcapsule powder are mainly used in infant formula food and dietary supplements, and are also commonly used in milk powder, soft capsules, solid beverages, soft candies, special food, special medical food, baked food, processed meat products and other healthy food to enhance the health value. Algae powder can be used in animal nutrition.

DHA



嘉必优鱼油粉产品系列

嘉必优®鱼油粉（金枪鱼来源） DHA≥7%，DHA≥11%

嘉必优®鱼油粉（金枪鱼来源） DHA≥11%，EPA≥2.7%，Omega-3≥14.4%

嘉必优®鱼油粉 DHA≥10%，EPA≥5%，Omega-3≥15%

嘉必优®高EPA鱼油粉 DHA≥6%，EPA≥8%，Omega-3≥14.4%

嘉必优®高EPA鱼油粉 DHA: 9%-12%，EPA: 16%-18%，Omega-3≥26%

嘉必优®鱼油粉

嘉必优®鱼油粉原料来自清洁海域，来源全球优质深海鱼油，符合各国政府针对污染物的法规和准则，产品由嘉必优与澳大利亚Pharmamark公司联合开发，利用CSIRO（澳大利亚联邦科学与工业研究组织）创新微胶囊包埋技术，这种具有多重专利保护的微胶囊包埋技术能突破性改善Omega-3不稳定、容易氧化及腥味问题。嘉必优鱼油粉Omega-3 EPA和DHA的含量和配比符合中国新资源法规，产品品类丰富，可满足不同产品多样化的健康需求。

CABIO® fish oil powder

The raw material of CABIO fish oil powder is collected from the clean sea area, and it is sourced from the global high-quality deep-sea fish oil, which conforms to the regulations and guidelines of various governments for pollutants. The product is jointly developed by CABIO and Australian Pharmamark Company, and the innovative microcapsule embedding technology of CSIRO (Commonwealth Scientific and Industrial Research Organization) is used, which is a breakthrough in improving the instability, oxidation, and odor of Omega-3. The content and ratio of EPA and DHA in Omega-3 of CABIO fish oil powder are in line with China's new resource regulations, and the product category is rich, which can meet the diverse health needs of various products.

Omega-3



嘉必优β-胡萝卜素产品系列

晶体 (96%)

油悬液 (30%)

微粒 (10%, 20%)

干粉 (1%)

乳化液 (1-5%)

嘉必优β-胡萝卜素

——缤纷色彩 天然活力

嘉必优β-胡萝卜素是通过生物合成方式获得的一种高纯度、具有天然提取物属性的类胡萝卜素产品，为“追求天然色素和天然食品配料”提供了一个良好的解决方案。

嘉必优β-胡萝卜素分为健康功能性食品配料和天然着色剂两个系列。作为天然着色剂，β-胡萝卜素因浓度差异，可涵盖由紫红色至黄绿色的丰富色系，有良好的着色性能，常被应用于果汁饮料、特种食用油脂、面制品和烘焙食品。

作为健康食品配料，β-胡萝卜素不仅是维生素A源，在抗氧化、增强免疫、改善视觉障碍、预防心血管疾病、皮肤健康等方面表现不俗，常以软胶囊、硬胶囊、压片等形式应用于膳食补充剂和功能性保健食品，同时应用于婴幼儿配方食品和其它营养强化食品。

CABIO β-carotene

Rich colors and natural vitality

CABIO's β-carotene is a carotenoid product with the features of high purity and natural extract obtained through biosynthesis. It is a workable solution for "the pursuit of natural pigments and natural food ingredients".

CABIO's β-carotene has two series, healthy functional food ingredients and natural colorants. As a natural colorant, β-carotene can cover a rich color range from purple-red to yellow-green due to different concentrations. Due to its good coloring performance, it is often used in juice drinks, special edible oils, pasta products and baked food.

As a healthy food ingredient, β-carotene is not only a source of vitamin A, but also performs well in antioxidant, immune enhancement, visual impairment improvement, cardiovascular disease prevention, skin health and other aspects. It is often used in dietary supplements and functional health care products in the form of soft capsules, hard capsules, and compressed tablets, as well as infant formula food and other nutritional-fortified food.

β-carotene



001号新原料燕窝酸
纯度: ≥98%(HPLC)

燕窝酸 / 唾液酸

——母爱菁华 延续传统

燕窝酸（唾液酸）的化学名是N-乙酰神经氨酸，是母乳中人乳低聚糖的组分之一，是传统高端滋补品燕窝中具生物活性的主要成分和特征性功效成分，也是燕窝分级中唯一明示的营养成分，燕窝酸的含量是评判燕窝质量的重要指标。

2017年，N-乙酰神经氨酸获国家卫生健康委员会（原卫生计生委2017年第7号公告）批准为新食品原料。2022年，由武汉中科光谷绿色生物技术有限公司自主研发并生产的N-乙酰神经氨酸产品由国家卫健委认定为具有实质等同性。

作为一种新兴的功能性成分，燕窝酸能有效促进神经细胞、上皮细胞、免疫细胞的发育和功能修复，具有提高免疫力、促进智力发育和滋补养颜、延缓衰老等功效。2022年，经国家药监局批准，燕窝酸在抗皱、抗氧化等方面的功效增加为抗皱剂、抗氧化剂、皮肤保护剂、保湿剂。

嘉必优燕窝酸是由嘉必优全资子公司武汉中科光谷绿色生物技术有限公司采用发酵技术生产的一种安全、优质的新食品原料，燕窝酸在婴幼儿配方食品、保健食品、高滋食品和化妆品及个人护理领域有良好的应用前景。

Sialic acid

Maternal love and tradition continuation

The chemical name of sialic acid is N-Acetylneuraminic acid, which is one of the components of human milk oligosaccharides in breast milk. It is the main component with biological activity and characteristic effect in traditional high-level tonic bird's nest, and it is also the only indicated nutrient ingredient in bird's nest grading. The content of sialic acid is an important index to evaluate the quality of bird's nest.

In 2017, N-acetylneuraminic acid was approved by the National Health Commission (the original Health and Family Planning Commission Announcement No. 7 in 2017) as a new food raw material. In 2022, N-acetyl neuraminic acid products independently developed and produced by Wuhan CASOV Green Biotech Co., Ltd. was recognized as substantively equivalent by the National Health Commission.

As a new functional component, sialic acid can effectively promote the development and functional repair of nerve cells, epithelial cells and immune cells, improving immunity, promoting intellectual development, nourishing skin, and delay aging. In 2022, approved by the National Medical Products Administration, the efficacy of sialic acid in anti-wrinkling and anti-oxidation is increased to anti-wrinkling agent, antioxidant, skin protectant and moisturizer.

CABIO sialic acid is a safe and high-quality new food raw material produced by Wuhan CASOV Green Biotech Co., Ltd. a holding subsidiary of CABIO, using fermentation technology. It has a good application prospect in the fields of infant formula food, health care products, high nutrition food, cosmetics and personal care.

Sialic acid



人乳低聚糖（HMOs）

FL、SL

HMOs即人乳低聚糖，是人乳中第三丰富的固体成分（仅次于脂肪和乳糖）。天然人乳中岩藻糖乳糖（FL）约占HMOs组成成分的30%以上，唾液酸化的HMOs占总量的12-14%，其中以6'-唾液酸乳糖（6'-SL）为主。大量研究证明，HMOs具有抗菌抗病毒、免疫调节、促进大脑发育等作用，尤其在促进婴幼儿生长发育和调节肠道菌群等方面具有重要意义。

Human milk oligosaccharides (HMOs)

FL, SL

HMOs, or human milk oligosaccharides, are the third most abundant solid component of human milk (after fat and lactose). Fucose-lactose (FL) accounted for more than 30% of HMOs in natural human milk, and sialic HMOs accounted for 12-14% of the total, of which 6'-sialate lactose (6'-SL) is the main component. A large number of studies have proved that HMOs, antibacterial and antiviral, can regulate immunity and promote brain development, especially in promoting the growth and development of infants and young children and regulating intestinal flora.

HMOs



类胡萝卜素

虾青素、番茄红素

虾青素、番茄红素是自然界常见的类胡萝卜素化合物，具有强抗氧化性及生物着色作用，在人类营养、动物营养、功能护肤领域具有广泛的应用前景。嘉必优的虾青素和番茄红素产品技术来源于天津大学元英进院士团队，该团队利用合成生物学技术对酿酒酵母细胞工厂进行重编程设计和改造，获得了高含量的虾青素和番茄红素生产菌种，所得产品与天然来源的虾青素和番茄红素在结构及构象上保持一致，可完全替代植物提取和化学合成来源的产品。

Carotenoids

Astaxanthin, lycopene

Astaxanthin and lycopene are common carotenoid compounds in nature, which have strong antioxidant and biological coloring effects, and have wide application prospects in the fields of human nutrition, animal nutrition and functional skin care. The product technology of Astaxanthin and lycopene produced by CABIO comes from the academic team directed by Academician Yuan Yingjin from Tianjin University. The team used synthetic biology technology to reprogram and transform the cell factory of *Saccharomyces cerevisiae* and obtained high content of astaxanthin and lycopene producing strains. The resulting product is consistent with natural astaxanthin and lycopene in structure and conformation. It can completely replace products from plant extraction and chemical synthesis.

Carotenoids



个人护理功能性原料

γ -PGA、 α -熊果苷

γ -PGA即 γ -聚谷氨酸,也被称为纳豆胶,是一种水溶性、高吸附性、无毒的氨基酸聚合物,可自然降解,被誉为新一代保湿剂,其不但具有不亚于透明质酸的保湿效果,还具备抗菌、抗毒(金属螯合)等诸多生理活性,可被广泛应用于食品、化妆品、生物医学、环境治理、农业生产等领域。

α -熊果苷,又称熊果素,是一种源于杜鹃花科植物熊果叶中的天然活性脱色成分,也存在于梨、越橘等植物中。相关研究表明 α -熊果苷直接抑制酪氨酸酶活性,不抑制人体细胞活性,是一种无过敏、无刺激、配伍性强、更高效安全的美白剂。

Personal care functional ingredients

γ -PGA, α -arbutin

γ -PGA or γ -polyglutamic acid, also known as natto gum, is a water-soluble, highly absorbent, non-toxic amino acid polymer, which can be naturally degraded. It is known as a new generation of moisturizer, which not only has a moisturizing effect no less than hyaluronic acid, but also has many physiological activities such as antibacterial and anti-toxic (metal chelation), so it can be widely used in food, cosmetics, biomedicine, environmental protection, and agricultural production.

α -arbutin, also known as arbutin, is a natural active decolorization component derived from the cowberry leaves in the Rhododendron family, and also exists in pears and bilberries. Relevant studies have shown that α -arbutin directly inhibits tyrosinase activity and does not inhibit human cell activity. It is an efficient and safe whitening agent of strong adaptation, without allergy or irritation.

γ -PGA α -arbutin



企业使命与愿景

以科技创新为核心驱动力，为客户提供优质的产品和创新的解决方案，实现高质量的增长和可持续的发展，为包括客户、员工、股东和所有相关方创造长期价值。

嘉必优致力成为全球领先的生物科技企业，赋能生命营养与健康。

Corporate Mission and Vision

With technical innovation as the core driving force, we provide customers with quality products and innovative solutions, achieve high-quality growth and sustainable development, and create long-term values for customers, employees, shareholders and other relevant parties.

We aim to become a world-leading biotech company that empowers life nutrition and health.