

Food Solutions

with whitening function

E-Newsletter September.2021

Kangcare Bioindustry Co.,Ltd



Research background:

With the change of consumption concept, people have more diversified demands and expectations for beauty. Skin status is one of the important signs to measure the beauty of a person, dark yellow skin, color spots will make beauty discount. Whitening functional food is to provide the skin with enough nutrition and active material, delay skin aging, inhibit melanin generation, let beauty from inside and outside.

Formulations are designed by inhibiting melanin formation in three ways:

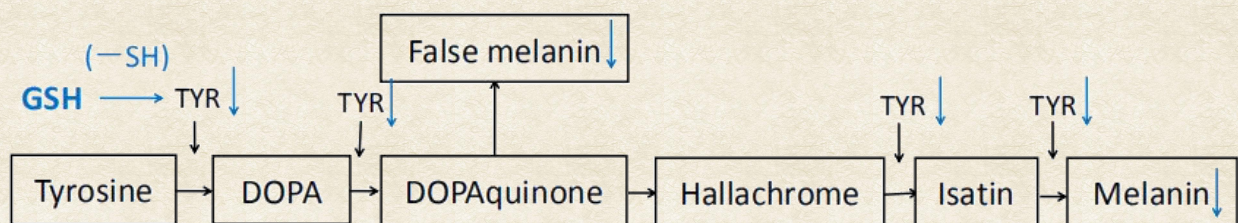
- 1) Key enzymes that directly inhibit melanin production (tyrosinase and DCT);
- 2) Inhibition of transcription factors (MITF, NF-KB) or signaling pathways (protein kinase A pathway, protein kinase C pathway) involved in melanin production;
- 3) Decrease the production of melanin production inducers (cAMP, GM-CSF) and increase the production of anti-melanin production factor (IL-13).



Recommended raw materials:

GluSHare® L-Glutathione Reduced

Glutathione is an important antioxidant in the body, because it can remove free radicals in the body, can effectively reduce the stimulation of ultraviolet light on melanocytes, prevent the formation of melanin in the body, and fundamentally inhibit or reduce the formation of melanin, prevent the precipitation of melanin, inhibit spots and freckles.





Fish Collagen Peptide

Skin collagen peptides containing tyrosine and tyrosine in the competition, and combine with the catalytic center of tyrosinase, thus inhibiting the production of melanin, make the skin collagen in the activity, keep the water and the integrity of the fiber structure, promote the metabolism of skin tissue, good for the skin moisturizing, cosmetic effect.

Astaxanthin

Ultraviolet radiation is an important cause of epidermal photoaging and skin pigmentation. Astaxanthin's strong antioxidant ability may make it a potential photoprotective agent, which can effectively remove free radicals causing skin aging, protect cell membrane and mitochondrial membrane from oxidative damage, and prevent skin photoaging.



Ascorbic acid

VC is a powerful antioxidant that is oxidized itself and reduces oxidized glutathione to reduced glutathione, thus exerting its antioxidant effect. VC can also reduce the disulfide bond (-S-S) to -SH, thereby improving the activity of related enzymes and playing an antioxidant role. Combined use of GSH and VC can inhibit the activity of tyrosinase and treat chloasma.

Kangcare Food Solutions with whitening function:

According to the market demand and users' pain points, Kangcare launched the latest research and development achievement: Jelly with whitening function.

Dosage forms: Jelly

Packaging: 6g/bag

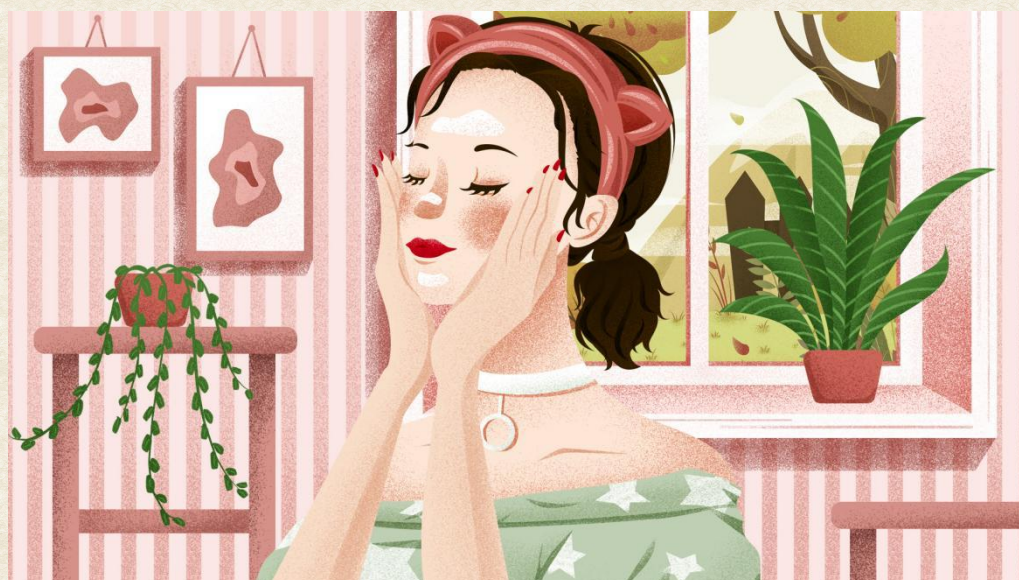
Usage mode: 1-2bag/day



Formula:

Ingredient	Specification	Additive amount
Yeast extract	Glutathione 12%	0.005-0.01%
Astaxanthin	2.5% CWS HPLC	0.005-0.01%
Collagen peptide	700-1200Da	0.05-0.5%
DL-Malic acid	-	0.5-2%
Carrageenan	-	1-5%
Konjaku flour	-	1-5%
Erythritol	-	50-70%
KCl	-	1-5%
Fruit juice concentrate	1:3 Concentration	20-40%

Water: Five times the total amount of raw materials



具有美白功能的

食品解决方案

E-Newsletter September.2021

Kangcare Bioindustry Co.,Ltd



研究背景:

随着消费观念的改变，人们对于美有了更加多元化的需求和期望。皮肤状态是衡量一个人美不美的重要标志之一，皮肤暗黄，色斑会让美丽大打折扣。美白功能性食品是通过提供皮肤足够的营养成分和活性物质，延缓皮肤衰老，抑制黑色素生成，让美丽由内而外。

通过抑制黑色素形成的三种途径来进行配方设计：

- 1)直接抑制黑素生成的关键酶（酪氨酸酶和 DCT）；
- 2)抑制参与黑素生成的转录因子（MITF、NF-kB）或信号通路（蛋白激酶 A 途径、蛋白激酶 C 途径）；
- 3)降低黑素生成诱导剂(cAMP、GM-CSF)的产生，提高抗黑素生成因子(IL-13)的产生。



推荐原料:

谷胱甘肽:

谷胱甘肽是体内一种重要的抗氧化剂，由于能够清除掉人体内的自由基，能够有效的减少紫外线对黑素细胞的刺激，阻止黑色素在体内的形成，而从根本上抑制或减少黑色素的形成，防止黑色素的沉淀，抑制斑点和雀斑。

胶原蛋白肽:

胶原蛋白肽含有的酪氨酸与皮肤中的酪氨酸竞争，而与酪氨酸酶的催化中心结合，从而抑制黑色素的产生，使皮肤中的胶原蛋白活性增强，保持角质层水分以及纤维结构的完整性，促进皮肤组织的新陈代谢，对皮肤产生良好的滋润保湿、消皱美容作用。

虾青素:

紫外线辐射是导致表皮光老化和皮肤色斑的重要原因，虾青素的强抗氧化性可能使它成为潜在的光保护剂，有效清除引起皮肤老化的自由基，保护细胞膜和线粒体膜免受氧化损伤，用于阻止皮肤光老化。

VC:

VC 是一种强抗氧化剂，其本身被氧化，而使氧化型谷胱甘肽还原为还原型谷胱甘肽，从而发挥抗氧化作用。VC 还能够使双硫键 (-S-S) 还原为-SH，从而提高相关酶的活性，发挥抗氧化的作用。GSH 与 VC 联合使用，可以抑制酪氨酸酶的活性，治疗黄褐斑。

具有美白功能的食品解决方案:

根据市场需求和用户痛点, kangcare 推出最新研发成果: 具有美白功能的果冻。

配方设计通过抑制黑色素形成途径。

剂型: 果冻

包装: 6 克/袋

使用模式: 1-2bag /天



原料	规格	添加量
酵母抽提物	谷胱甘肽 12%	0.005-0.01%
虾青素	2.5% CWS HPLC	0.005-0.01%
胶原蛋白肽	700-1200Da	0.05-0.5%
DL-苹果酸	-	0.5-2%
卡拉胶	-	1-5%
魔芋粉	-	1-5%
赤藓糖醇	-	50-70%
KCl	-	1-5%
浓缩果汁	1:3 浓缩	20-40%

水: 原料总量的五倍

