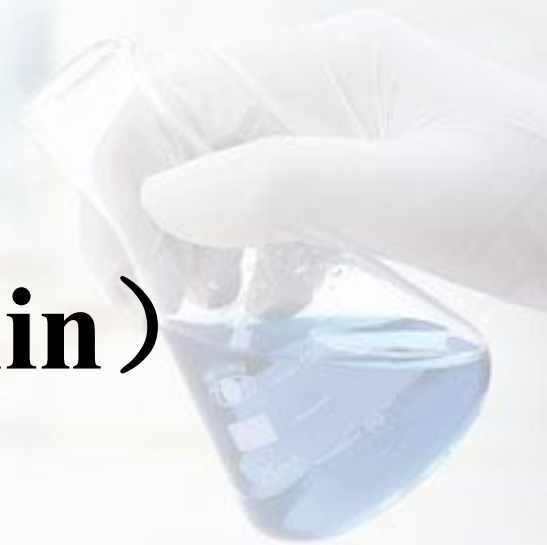


天然虾青素 (Natural Astaxanthin)



More Than 12Years Experience
Third Party Detection
Free Sample For Test
Unbeatable Prices For Long Cooperation

• Brief Introduction

- ◆ Product Name: Natural Astaxanthin
- ◆ Extract From: Haematococcus pluvialis powder
- ◆ Molecular Formula: C₄₀H₅₂O₄
- ◆ Molecular Weight : 596.85
- ◆ Appearance: Dark red powder or red oil
- ◆ Purity: powder form 2%-5%, astaxanthin form 5%-10%
- ◆ CAS No.: 472-61-7
- ◆ Solubility:

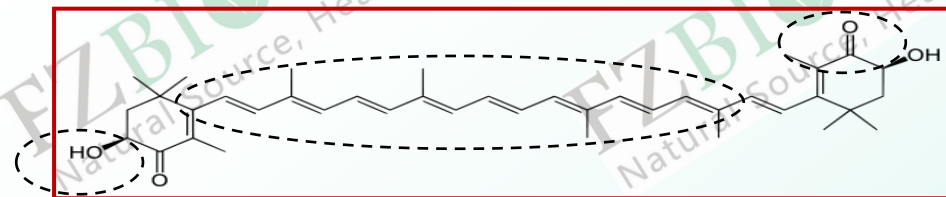
2% micropowder is water soluble;

astaxanthin oil is soluble in basic oil, edible oil, alcohol, ether, two methyl ether, chloroform, etc.. Insoluble in water.

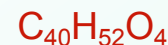


• Brief Introduction

- ◆ Natural Astaxanthin is kind of Ketone carotenoid, its full name is 3,3'-dihydroxy-beta,beta-carotene-4,4'-dione
- ◆ The end of the conjugated double bond chain has an unsaturated keto group and hydroxyl structure, easy to react with free radicals and remove free radicals
- ◆ Form three optical isomers: Left-handed (3S, 3'S), meso (3R, 3'S) and right-handed (3R, 3'R) structures, Only L-astaxanthin has strong anti-cancer, anti-oxidation and other biological activities, the dextrin structure astaxanthin has low biological activity, while meso-astaxanthin has no biological activity.



3S,3'S-Astaxanthin
g/mol



596.84

- **Difference between synthetic and natural astaxanthin**

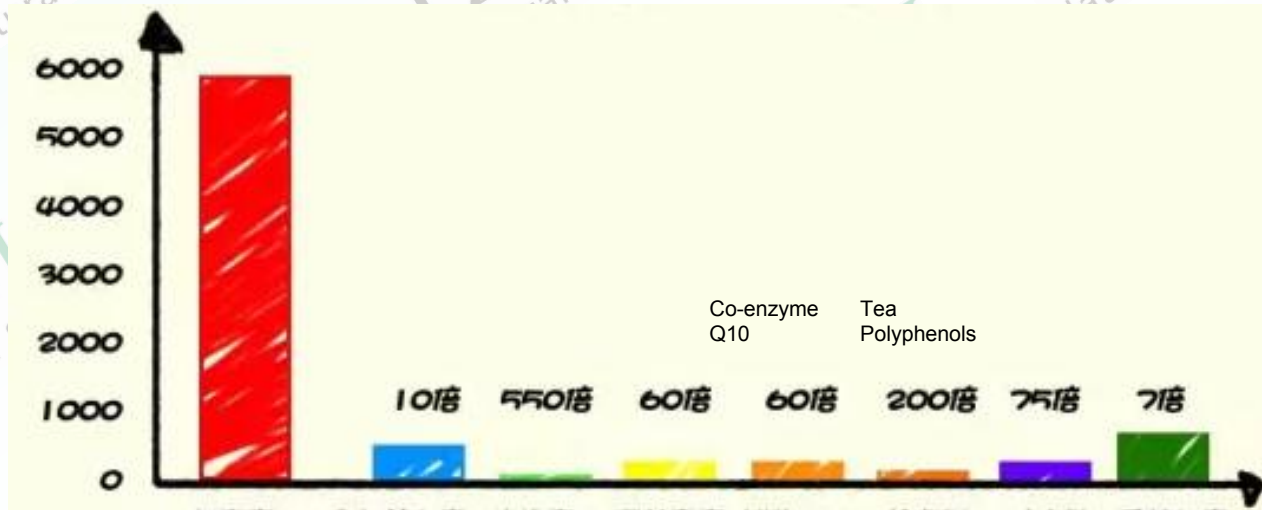
Synthetic astaxanthin has a lower stability and antioxidant activity than natural astaxanthin, due to more than 90% of natural astaxanthin is esterification form, so it is stable, But synthetic astaxanthin exists in free form, So their stability are different. The synthetic astaxanthin must be embedded to be stable. Left-handed structure accounts for 1/4 of Synthetic astaxanthin, so its antioxidant activity is only about 1/4 of the natural astaxanthin. The non-natural by-products produced during the synthesis process will reduce down its bioavailability safety. The Drug Administration (FDA) has prohibited synthesized astaxanthin from using in health food supplements.

• Process Chart

Mass cultivation of haematococcus pluvialis → Haematococcus pluvialis liquid
→ The harvest of haematococcus pluvialis → Cleaning and concentration
→ Concentration the liquid → Spray drying → Make powder dry
→ Quality inspection → Packing → Haematococcus pluvialis finished
→ Save and preserve → Deliver from godown

• Characteristics

1、The strongest antioxidant now



Astaxanthin

β-Carotene

Ve

Proantho
Cyanidins

Co-enzyme
Q10

Tea
Polyphenols

Lipoic
acid

Lycopene

2.Strong penetrability

It is a kind of carotenoids that can penetrate the blood-brain barrier of humans.

- It can reach human cerebrovascular lesions, clear blood, soften blood vessels, relieve cerebral thrombosis, and suffer from stroke sequelae.
- Protects the brain and central nervous system (optical nerve) from antioxidants and anti-inflammatory, enhances memory, improves vision, and effectively prevents Alzheimer's disease and eye diseases.



3. Transmembrane stability

The cell membrane of the human body is a water-based membrane composed of a layer of phospholipids, which has poor stability and is easily broken by viruses, bacteria, free radicals, drugs and the like. The cell membrane is the door to our lives. Astaxanthin is able to cross the phospholipid bilayer of the cell membrane, stabilize the cell membrane and protect our lives.

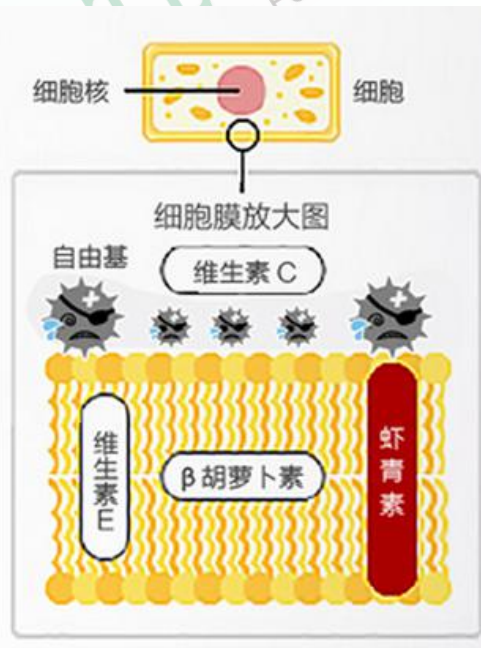
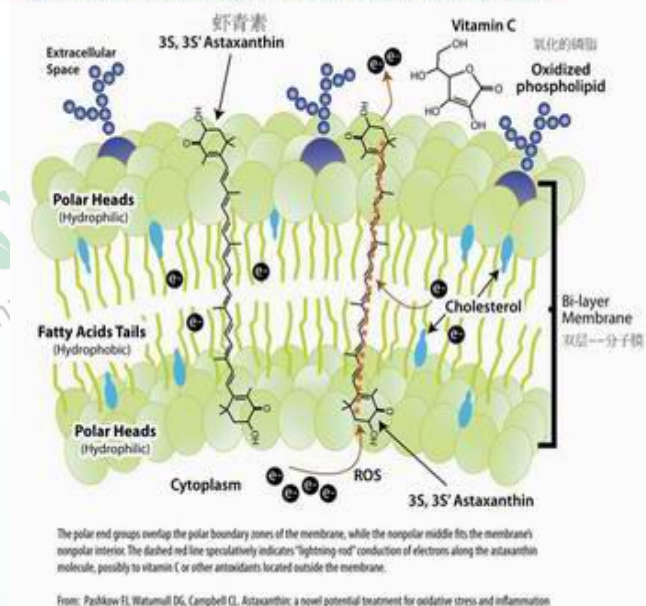


Figure 2. Transverse Cell Membrane Orientation of 3S,3S' Astaxanthin, the Major Molecular Form from *H. phycalis*®



4、 Absorbed Easily

Its molecular weight is just 596.8 da,so it is easily absorbed by human body.



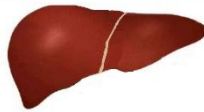
• Main Benefits

Anti-aging



Relieve eye fatigue

Good for
liver and
Kidney



Promote heart and brain
blood vessel health

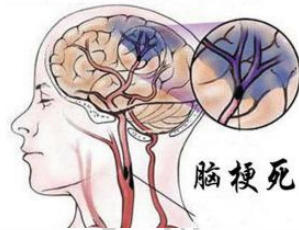
Protect
neurovascular
system



Improve muscle elastic

Other benefits → Anti-inflammatory, anti-cancer, anti-diabetes

•Astaxanthin: Effective prevention of recurrent cerebral infarction



•A study from the United States shows that Take a larger dose of astaxanthin 20-24mg / day Can be more effective to prevent the recurrence of cerebral infarction,And does not affect the body's coagulation function, avoiding the risk of cerebral bleeding. For patients with hypertension and atherosclerosis, it can also be used as a nutritional supplement for the prevention of cerebral infarction for a long time.

•Astaxanthin: The umbrella for cardiovascular disease



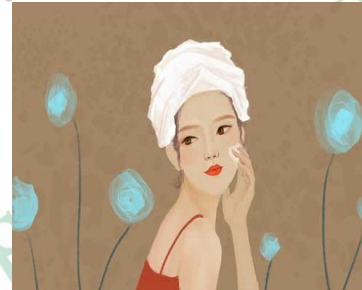
Volunteers were given 5.0, 6.2, and 14.4 mg astaxanthin for 2 weeks, The LDL oxidation was prolonged by 5.0%, 26.2%, and 42.3% respectively. The main reason caused arteriosclerosis is Low-density lipoprotein (LDL) was being oxidized. The higher the concentration of LDL in the human body, combined with platelet deposition, which makes blood vessels thinner and impedes blood flow, then the risk of arteriosclerosis will increase much more.

- **Astaxanthin: anti-inflammatory, anti-infective, pain-relief**



The effect of inflammatory factors (such as prostaglandin E) inhibited by 4mg/day astaxanthin is equivalent to that of 4mg cortisone, so it is also known as hormone no side effects.

- **Astaxanthin: anti-aging, anti-wrinkles, improve skin elastic**



The Japanese research from 49 healthy middle-aged women with an average age of 47 years who take astaxanthin 4 mg/d for 6 weeks show that astaxanthin can effectively improve shallow wrinkles, skin elasticity and skin moisture.

Astaxanthin can also effectively inhibit the production and precipitation of melanin, up to 40% improvement rate.



Thank You!

Xi'an Fengzu Biological Technology Co.,Ltd

Office Add: 21F, Tangfengguoji, No.18 Fenghuinanlu, Xi'an City, Shaanxi
Province, China.

Office Tel: 86-029-89561932/86-135-7248-9476

Email: sales@fengzusw.com

Skype: fengzusw