

DUOLIFE

# Astaxanthin

Food supplement

**DUOLIFE Astaxanthin** is a food supplement **from the Pure Formula line** which contains naturally sourced astaxanthin in a concentrated dose, sourced from *Haematococcus pluvialis* algae. It is enclosed in capsules made of HPMC, an organic cellulose derivative, with delayed release time. Astaxanthin supports the optimal functioning of the immune system and helps protect cells against the effect of oxygen free radicals. Patented algae formula is standardised to contain 5% of astaxanthin. Thanks to standardisation, the amount of astaxanthin in the product is guaranteed.



Simple, targeted composition



Product with comprehensible purpose



Convenient form of use



Naturally sourced ingredients

## When to use DUOLIFE Astaxanthin?

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**The DUOLIFE Astaxanthin food supplement is intended for use as a product supporting the optimal body functioning in people:**

- ▶ wishing to support proper immune system function;
- ▶ wishing to slow down body ageing processes;
- ▶ wishing to support the normal function of the cardiovascular system;
- ▶ wishing to support the normal function of the cardiovascular system;
- ▶ wishing to support brain function;
- ▶ wishing to support the optimal functioning of the sight organ;
- ▶ wishing to contribute to improved skin condition;
- ▶ wishing to support the protection against UV radiation;
- ▶ who are elderly, seniors;
- ▶ employed as knowledge-workers;
- ▶ who remain active as well as athletes.

## How does astaxanthin found in the DUOLIFE Astaxanthin food supplement work?

**DUOLIFE Astaxanthin** is a food supplement based on high-quality proprietary formula sourced from *Haematococcus pluvialis* algae and standardised for 5% astaxanthin content. Thanks to standardisation, the amount of astaxanthin in the product is guaranteed.

Astaxanthin found in the **DUOLIFE Astaxanthin** food supplement supports:

- ▶ antioxidative processes;

- ▶ immune system function, helps minimise inflammations;
- ▶ slowing down ageing processes;
- ▶ cardiovascular system function;
- ▶ metabolic processes, thus contributing to the stabilisation of blood glucose and cholesterol levels;
- ▶ nervous system (including the brain) function;
- ▶ normal vision;
- ▶ skin's well-being, helping to maintain the hydration and elasticity, and to minimise the risk of discolourations;
- ▶ protection against UV radiation and premature skin ageing.

**Instructions for use:** 2 capsules a day, with a meal. Do not exceed the recommended daily dose. The product should not be a substitute for a varied diet. A balanced diet and healthy lifestyle are essential for the proper functioning of the body.

**It is beneficial to combine the DUOLIFE Astaxanthin food supplement with:**

DUOLIFE RegenOil Liquid Gold®, DUOLIFE Vita C, DUOLIFE Vita C Powder, ProSelect®, ProDeacid®, ProCardiol®, ProImmuno®, BorelissPro®, DUOLIFE Chlorofil, DUOLIFE My Mind, other products from the DUOLIFE Pure Formula line.

**Precautions**

- ▶ Do not use if you are hypersensitive to any of the ingredients of the product.
- ▶ Do not use in children.
- ▶ Do not use in pregnant or breastfeeding women.
- ▶ If you have a chronic condition or are taking medication, consult your doctor before using the product.

**Ingredients – Content in the daily dose (2 capsules):** Inulin from chicory (*Cichorium intybus*) root, proprietary formula of *Haematococcus pluvialis* algae (160 mg) standardised to 5% astaxanthin content (8 mg), anti-caking agent: silicon dioxide (from rice). Coating ingredient: hydroxypropyl methylcellulose (HPMC).

## Discover the ingredients of the DUOLIFE Astaxanthin food supplement

Patented *Haematococcus pluvialis* algae formula standardised to contain 5% of astaxanthin.

**Astaxanthin**, also known as **"the queen of carotenoids"**, is a compound from the xanthophyll group, which naturally occurs in the environment. Carotenoids are colourants synthesised by plants, fungi, bacteria and algae. These colourants participate in many biological processes of plants, are responsible for the colour of many fruit and flowers, and possess strong antioxidising properties.

The human body can't synthesise carotenoids, so they must be supplied with food. Astaxanthin biosynthesis is done only by some species of algae, yeast, Gram-negative bacteria and plants. The main source of astaxanthin in human diet are fish and seafood. But **the richest source of this compound are *Haematococcus pluvialis* algae**<sup>1,2</sup>. In the body, astaxanthin with the presence of bile acids binds with fats, creating micelles, and in such form reaches body tissues where it has antioxidant effect.

Astaxanthin is one of nature's **strongest antioxidants**. It has been proven that compared to vitamin E, beta-carotene, lutein and lycopene, astaxanthin shows the highest antioxidant activity against peroxide free radicals<sup>3</sup>. Astaxanthin helps decrease the amount of oxygen free radicals, inhibits the production of free radicals and protects the cells against oxidative stress. Thanks to that, it **supports the protection of DNA and cellular mitochondria against damage and harmful impact of UV radiation**<sup>2</sup>. Astaxanthin's antioxidant action is directly linked with supporting the anti-inflammatory and immunostimulating properties. It has been proven that astaxanthin fosters the production and activation of antibodies.

It can contribute to the action of both Th1 lymphocytes that support cell response, as well as Th2 lymphocytes stimulating the body's humoral response, which may **foster the minimisation of inflammations and the opti-**

### mal immune system function<sup>5</sup>.

Astaxanthin contributes also to **optimal function of the cardiovascular system** and protects the heart. Supplementing astaxanthin may **help reduce the “bad” LDL cholesterol and simultaneously increase the amount of the “good” HDL cholesterol**<sup>6,7</sup>. Scientific reports also highlight that astaxanthin can foster the **stabilisation of blood glucose level** and increase sensitivity to insulin and limit the complications linked to disordered metabolic processes<sup>8,9</sup>. There are research reports indicating that thanks to antioxidant action, astaxanthin contributes **to the protection of neurons against the harmful impact of oxidative stress and supports the functioning of the nervous system and the brain**<sup>10</sup>. Astaxanthin contributes also to the **protection of the sight organ** against the harmful impact of UV radiation and helps alleviate the symptoms of eye strain<sup>2,11</sup>.

Astaxanthin also has an effect that fosters the protection of the skin against harmful external factors and UV radiation. What's more, it contributes to inhibiting the action of inflammatory mediators and reduces the activity of oxygen free radicals which may reduce skin photoageing, the emergence of wrinkles and furrows. It also helps maintain skin hydration, elasticity, and reduce the amount of melanin in the skin, thus helping to reduce the emergence of discolourations and age spots<sup>12</sup>.

It has also been shown that astaxanthin helps athletes in **post-workout** regeneration and in **improving their strength and stamina**. As astaxanthin scavenges oxygen free radicals, the body's cells can produce more energy, which increases physical strength<sup>13,14</sup>.

DUOLIFE Astaxanthin also contains inulin sourced from chicory root, which synergistically supports the action of the main ingredient - astaxanthin.

## Inulin from chicory root

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**Inulin from chicory root** has additional valuable prebiotic properties. Inulin belongs to the fraction of soluble dietary fibre and contributes to the maintenance of intestinal flora balance. Thanks to that, it helps restore the natural microbiota by supporting the immune system function<sup>15</sup>.

## What makes the DUOLIFE Astaxanthin food supplement so special?

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- ▶ **Simple, targeted composition** – based on the main active ingredient **with known properties and a concentrated dose**.
- ▶ **Product with comprehensible purpose**.
- ▶ **Naturally sourced ingredients**.
- ▶ **No artificial fillers, preservatives or unnecessary additives**.
- ▶ **Convenient form of use** – capsules made of organic cellulose derivative (HPMC; hypromellose; hydroxypropyl methylcellulose) with delayed release time, supporting the protection of active ingredients against the acidic pH of the gastric juice.
- ▶ **Uniformity of the Pure Formula line** – **easy recommendation** – 1 packaging contains 60 capsules for 1 month of use (2 capsules a day).
- ▶ The supplement can be easily adjusted to the individual needs of the body.
- ▶ The product is **LACTOSE-FREE** and **GMO free**.
- ▶ The product is **GLUTEN-FREE** – **suitable for people with gluten intolerance**.
- ▶ The product is **suitable for vegans and vegetarians**.
- ▶ Multilingual label.

**i** Reference list for DUOLIFE Astaxanthin formulation can be found in the separate sheet of the binder.

## References

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