



AstaReal® Natural Astaxanthin

Astaxanthin - One of Nature's
Most Powerful Antioxidants

Animal Health



Animal Health starts with **NOVASTA®** Astaxanthin

Animal nutrition support from
AstaReal – The Natural
Astaxanthin Pioneer

Natural & Pure Antioxidant Power

NOVASTA® Astaxanthin at a glance:

- One of the nature's most powerful antioxidants
- Pure algal flour, derived from microalgae *Haematococcus pluvialis*
- NOVASTA® is available in two different forms: 4.5-5% biomass (NOVASTA® biomass) and 1.5% encapsulated powder (NOVASTA® EB15)
- Classified as feed raw material, produced indoors, and approved by the Swedish Board of Agriculture
- Can be added to a wide array of feed applications
- Suitable for all animals, including pets and animals in competitive sports, agriculture, and aquaculture
- Supports animal wellbeing, fitness, and general health, with proven benefits for muscles, eyes, brain, immune system and more
- Contains valuable proteins, carbohydrates, and essential fatty acids, as well as other carotenoids including lutein, beta-carotene, and canthaxanthin





NOVASTA® to be part of every animal's diet

PETS

"What's good for me is good for my pet." Consumers want the best for their animal companions and are increasingly seeking premium pet foods with healthy ingredients that are scientifically backed – like NOVASTA® Astaxanthin.

Natural astaxanthin supports:

- Maximized post-exercise energy availability ⁽¹⁾
- Eye health and visual function ⁽²⁾
- Attentiveness and cognitive response ⁽³⁾
- Immune defense ^(4,5)
- Mitochondrial function ⁽⁶⁾
- Liver function and lipid metabolism ⁽⁷⁾
- Cardiovascular protection ⁽⁷⁾



HORSES

Whether it's for dressage or high-performance racing, horses often undergo rigorous training that places great strain on their muscles and joints.

NOVASTA® Astaxanthin helps horses to regenerate and move comfortably throughout their lives by supporting:

- Recovery from exercise-induced muscle damage (e.g., tying-up syndrome) ⁽⁸⁻¹⁰⁾
- Live foaling rate per cycle in mares ⁽¹¹⁾



LIVESTOCK

For farmers, achieving the highest possible yield of good quality from cattle, pigs, sheep, poultry and other livestock is key. A good approach to achieve this is by offering a nourishing feed and to safeguarding animal health.

Natural astaxanthin supports farming by encouraging:

- Improved fertility ^(12,13)
- Better growth during suckling ⁽¹⁴⁾
- Enhancement of meat quality in broiler chickens ⁽¹⁵⁾
- Improved antioxidant status, normal immune defense and anti-inflammatory response in broiler chickens ⁽¹⁵⁾
- Egg yolk pigmentation and fortification ^(16,17)
- More successfully hatched chickens ⁽¹⁸⁾
- Lower incidence of mastitis in cows ⁽¹⁹⁾



AQUACULTURE

Global demand for seafood is growing, but so is consumer awareness of the environmental impacts of overfishing. Thus, the need for sustainable aquaculture is evident. NOVASTA® allows aquaculturists to use fewer fish-based products, since it is completely derived from algae.

Natural astaxanthin supports:

- Close-to-nature nutrition for fish and crustacean
- Sustainable and environmentally sound feeding practice
- Optimal growth, health and natural pigmentation ⁽²⁰⁾
- Hemato-biochemical improvement and immunocompetence of aquatic animals ^(21,22)
- Stabilized gut microbial homeostasis and improved immune response ⁽²³⁾
- Improved stress resistance ⁽²⁴⁾



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Naturalness Quality Versatility Sustainability

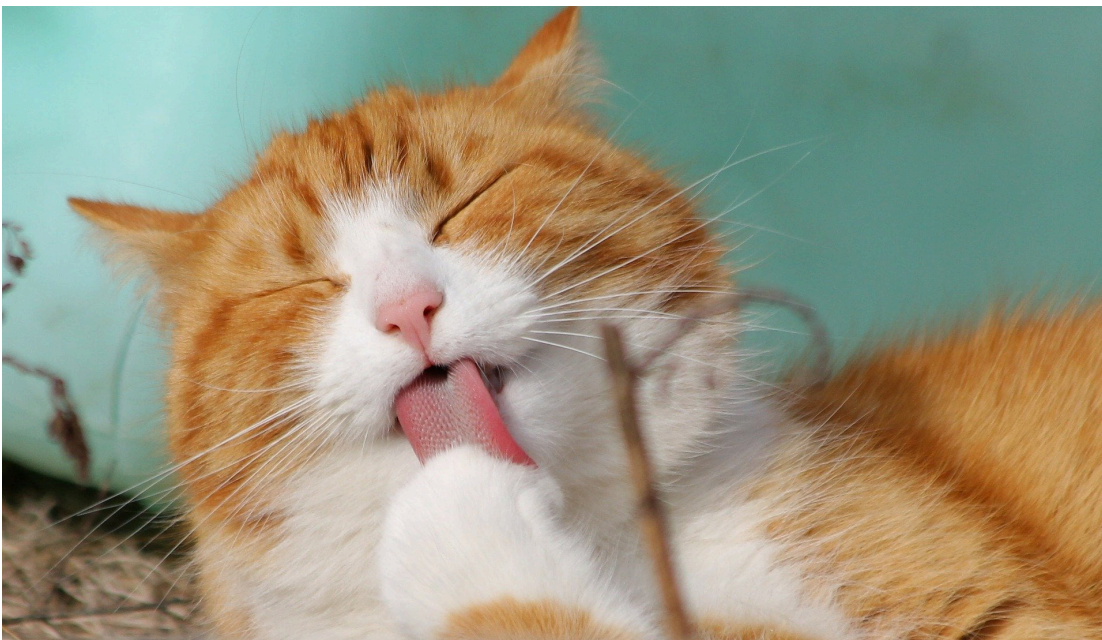
NOVASTA® Astaxanthin

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Naturalness

Astaxanthin is a natural carotenoid found in waters around the world – from arctic marine environments to riverside rock pools. It gives salmon, shrimp, and lobsters their orange-red color.

In the natural environment, animals must obtain astaxanthin from their diet as they cannot produce carotenoids themselves.



Versatility

NOVASTA® is suitable for use in a wide array of feed applications with some technical considerations. It is feasible to combine it with other ingredients, for the development of innovative animal feed products including:

- Dry food
- Wet food
- Powder mixes
- Extruded treats
- Soft chews
- Flakes
- Layered formulas
- Compressed tablets
- Softgel capsules
- Liquid solutions

NOVASTA® Astaxanthin



Sustainability

Sustainability is driving the way we source plant-based ingredients today – particularly as consumers are increasingly concerned about the origins of the products they buy. They favor those produced in an environmentally-sound way, along the whole supply chain.

Since algae have minimal energy and nutrient requirements, they are more sustainable than most conventional crops and have limited environmental impact. Microalgae-derived astaxanthin therefore represents a sustainable and naturally sourced feed ingredient with excellent eco credentials.



Quality

Astaxanthin's quality is affected by the environment it comes from. AstaReal rejected outdoor methods of cultivation of *Haematococcus pluvialis* because those methods are susceptible to contamination.

We grow our algae indoors under controlled conditions. This results in a safe product with zero impurities and at least 4.5-5% astaxanthin content in the NOVASTA® biomass and 1.5% in our encapsulated NOVASTA®.



Why AstaReal?



Trusted Science

AstaReal is an authority in both animal and human clinical studies and is the only brand of natural astaxanthin backed by over 70 clinical studies. With clinical studies across indications such as skin health, muscle performance, vision and eye health, cognitive function, heart health, immune function and anti-fatigue – you can be assured that AstaReal® is supported by solid scientific evidence. Our global team of experts would gladly support you in all phases of your product development with full respect to regulatory framework of your target market.



Unrivalled Quality Standards

Stability and purity of natural astaxanthin matters as poor quality can have a negative impact on your final formula. Our cultivation process allows for optimal maturation of the cells, resulting in a superior product with the highest quality, stability, and concentration available on the market.

AstaReal® is ISO 9001, FSSC 22000, HACCP, Informed Ingredient, Halal and Kosher certified. Our Halal certification opens a range of opportunities for our partners. AstaReal® A1010, L10 and EL25 are registered by the Vegan Society.



Worldwide Expertise

Take your product to the world – our partners benefit from access to talented, high performing local teams of technical, marketing, and regulatory experts with in-depth knowledge of their target market.



Your Partner for Innovation

The AstaReal® product range allows the development of innovative dosage forms, from traditional to on trend. Reach out to hear about the latest market insights that may inspire you in choosing the perfect delivery format for your target market.

Read more here
www.astareal.se

Thank you for reading!

We will be happy to discuss the best NOVASTA® applications in your new product development projects.

Let our astaxanthin expertise work for you and get in touch with us.

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