



ruby^o®

Next-Gen Enhanced Omega-3.

Omega-3 Reengineered at the Cellular Level

A new lipid architecture designed to work with biology.

Omega-3 Works. But Delivery Is Broken. It's delivery.

The problem is not omega-3. The problem is **delivery architecture.**

Omega-3 is one of the most studied ingredients in human nutrition. Its benefits for **heart, brain, vision, pregnancy, and performance** are well established and yet, outcomes in the market are inconsistent.

A necessary shift is needed.
From quantity to quality.
From passive fuel to **cellular design**

WHY?



High doses.



Multiple capsules.



Variable absorption.



Inconsistent clinical outcomes.



It's Not Just What You Deliver. **It's How You Deliver It.**

The body evolved to recognize and transport fats through specific molecular structures, not isolated oils.

When omega-3 is delivered in forms the body does not naturally prioritize, more dose is required to compensate.

Human biology does not absorb all lipids the same way.

Pill fatigue

When higher doses are required to achieve meaningful impact, consumers must take multiple softgels per day — reducing compliance and long-term adherence.

Larger softgels

Delivering higher milligram loads often requires bigger capsules, which can be difficult to swallow and negatively impact user experience.

Higher cost per serving

Inefficient delivery means more omega-3 is needed to compensate, increasing ingredient load, capsule size, and overall cost per serving for brands.

So the real **question becomes:**

What if omega-3 were delivered in a structure the body already knows how to use efficiently?

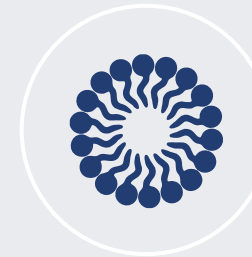
Nature Already Solved This.

For thousands of years, humans obtained Omega-3 from whole foods, especially fish.



Importantly, in those natural sources, omega-3 was not isolated. It was never ment to be delivered alone. **It was delivered together with phospholipids.**

These **phospholipids** act as biological carriers:



Recognized by cell membrane.



Transported efficiently to tissues.

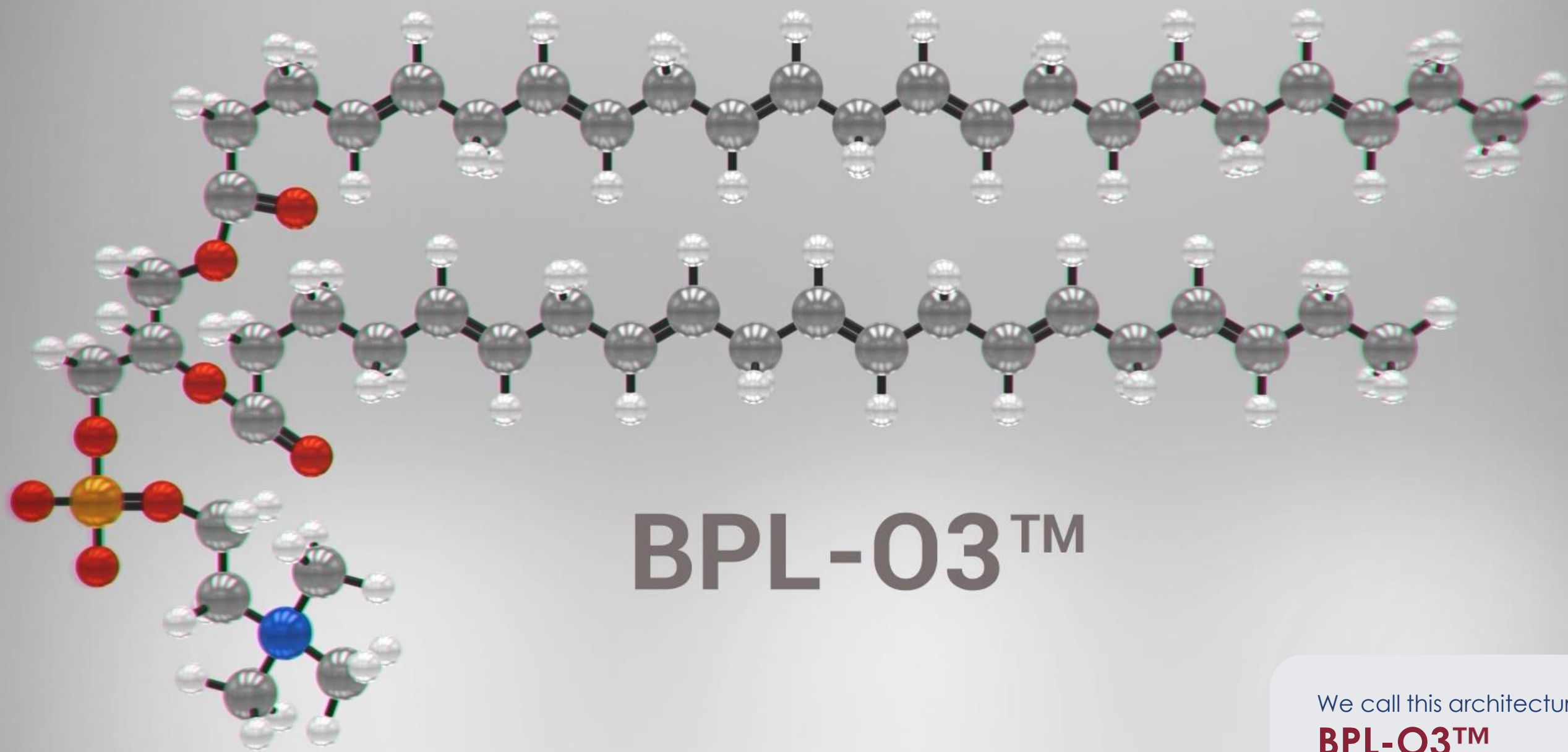


Delivered in a form the body recognizes and knows how to use.

This is not a trend.

This is how nature intended omega-3 to be delivered from the beginning.

Ruby-O® returns to this principle: Omega-3 performs best when delivered in biologically familiar structures.



BPL-03™

We call this architecture:

BPL-O3™
Bonded Phospholipid Lipids.

A Designed Molecular
Architecture, Not a Blend.

ruby-o[®]

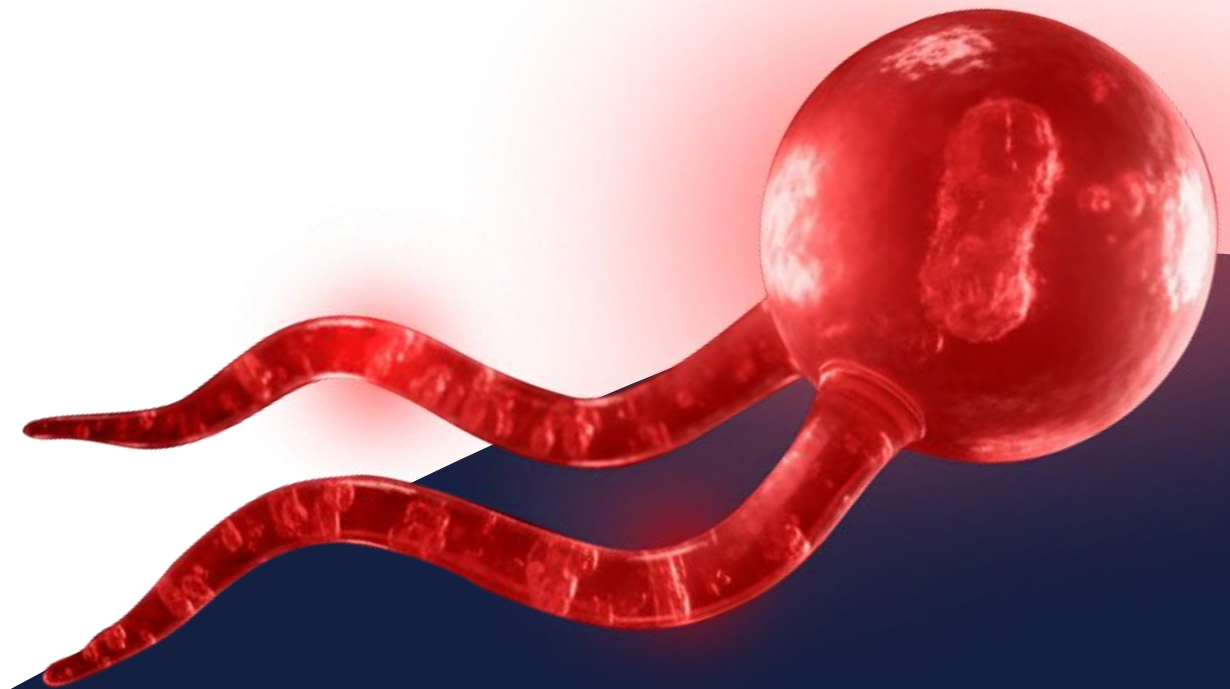
Bonded Phospholipid Lipids (BPL-03™)
Biomimetic omega-3 delivery



Not just another omega-3 oil. A new way of delivering omega-3.

Next-Generation Omega-3 Platform.

A proprietary molecular architecture where **EPA and DHA are bonded to phospholipids**, creating a structure the body recognizes and utilizes more efficiently.



In Ruby-O, omega-3 fatty acids are bonded to phospholipids, forming a structure that integrates naturally into biological lipid transport systems.

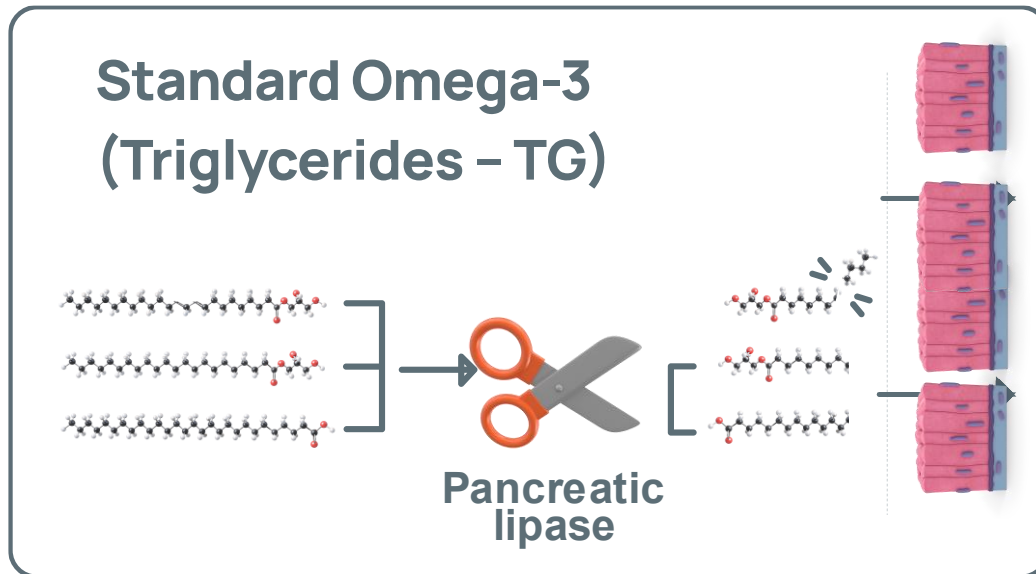
This **unique architecture opens new possibilities** for next-generation omega-3 formulations.

Ruby-O is an ingredient platform designed for brand innovation.

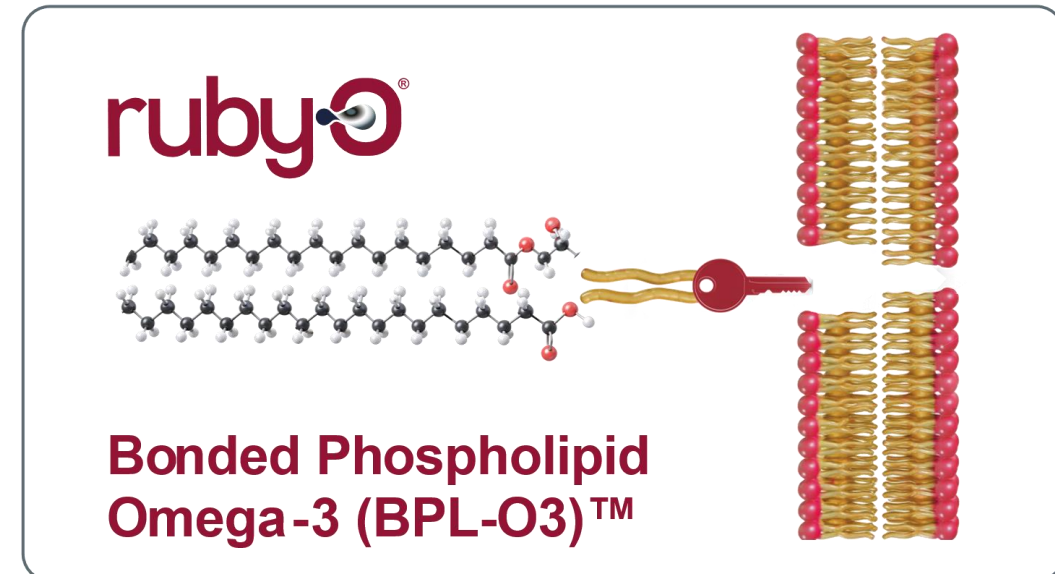
The Biomimetic Design Principle, the Ruby-O way

Designed Like the Body Works

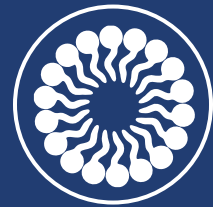
Biomimetic design means designing solutions that emulate natural biological systems.



VS



Ruby-O[®] BPL-O3™ is biomimetic because it:



Uses phospholipid architecture similar to human cell membranes



Mimics natural lipid transport pathways



Reduces reliance on digestive reassembly



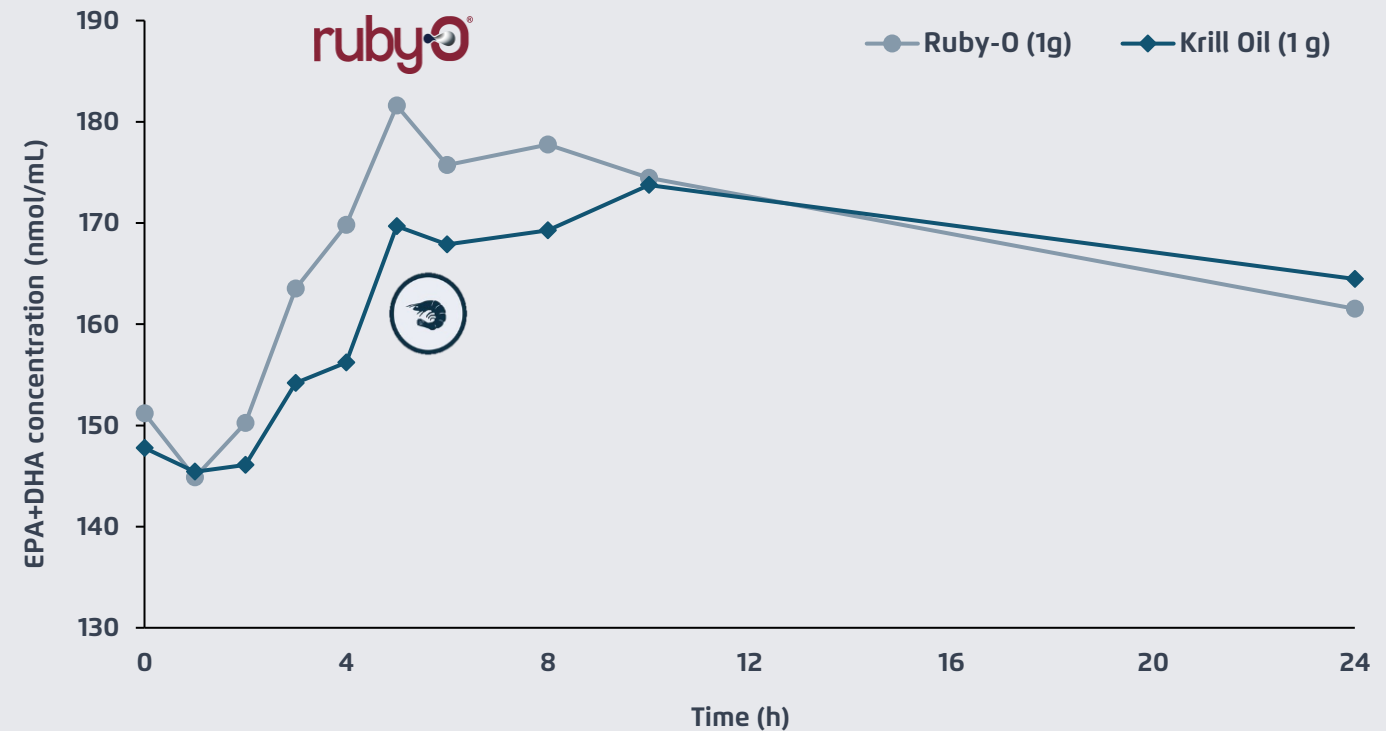
Aligns with how omega-3 is naturally handled in the body

Ruby-O[®] does not force biology to adapt. **It adapts to biology, offering the “key to the cell”**

Clinical Evidence of Smarter Omega-3 Uptake

Ruby-O delivers omega-3 in a form the body recognizes and uses more efficiently, resulting in faster uptake and higher peak levels compared to krill oil.

Ruby-O® delivers more omega-3 to the bloodstream, and gets there quicker than krill oil!



Mean (SE) of eicosapentaenoic acid + docosahexaenoic acid plasma concentrations over 24 h after a single oral dose of phospholipid-enhanced fish oil or krill oil (N=24).



25% higher EPA+DHA peak concentration



EPA peak reached 2.4 hours faster



62% more EPA+DHA per capsule



No fishy aftertaste or digestive discomfort

Clinically Validated Superior Delivery

34%

Ruby-O has been evaluated in a human clinical study against conventional fish oil*



825 mg/Day
(EPA+DHA)

903 mg/Day
(EPA+DHA)

KEY FINDINGS:

34% higher omega-3 absorption efficiency, measured by Omega-3 Index per mg of EPA+DHA
Faster and higher EPA uptake
Improved responder rates at lower doses

Despite delivering less total omega-3, Ruby-O achieved:

- Up to 3x greater triglyceride target attainment compared to standard fish oil
- A higher proportion of participants reaching healthier triglyceride thresholds

Ruby-O changes *how* omega-3 enters the body.

*12-week, randomized, double-blind clinical trial involving adults diagnosed with hypertriglyceridemia. Participants were assigned to receive either Ruby-O® Balance or a standard omega-3 supplement, each at a dose of 3 capsules per day. Despite delivering a lower daily EPA+DHA dose (825 mg vs. 903 mg), Ruby-O® demonstrated superior outcomes in triglyceride reduction and Omega-3 Index improvement.

Clinically Proven:

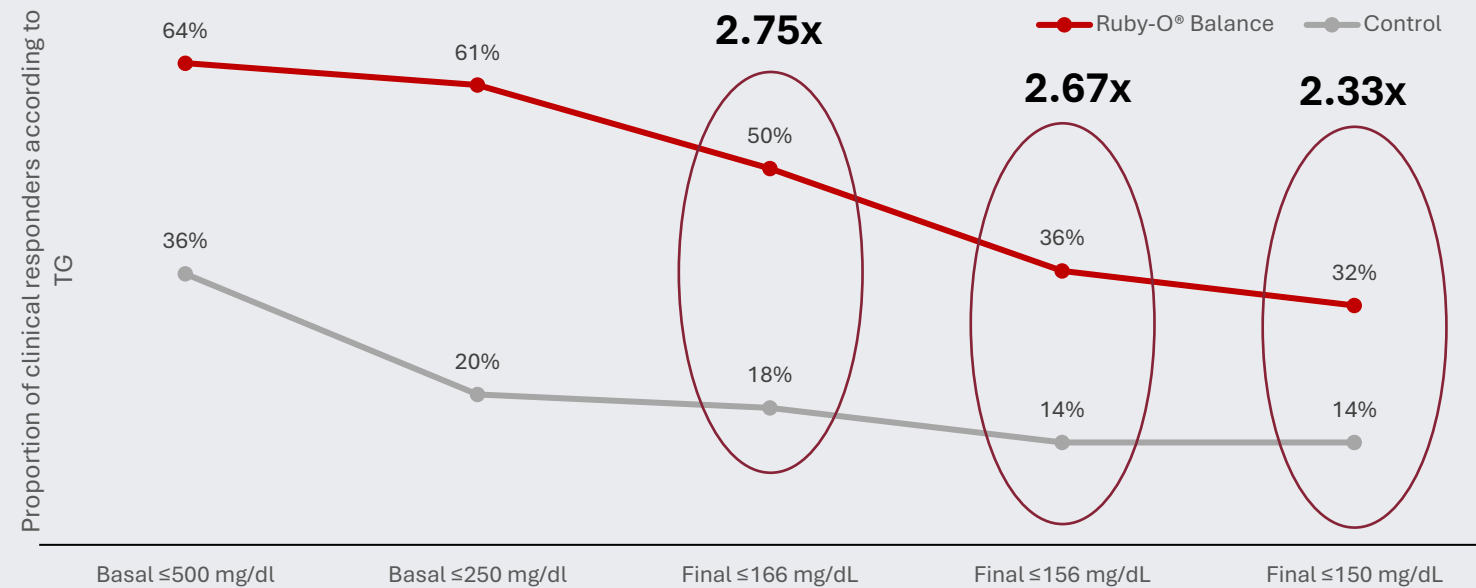
More People Reach Therapeutic Triglyceride Targets with Ruby-O

Improved omega-3 delivery translates into higher responder rates across clinically relevant triglyceride thresholds.

Up to 2.75x more responders reached therapeutic TG targets vs standard omega-3

Consistent superiority across increasingly strict TG thresholds

Stronger response even in individuals with moderate dyslipidemia



Better delivery leads to better outcomes, for more people.

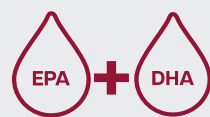
Faster and more efficient delivery is not just a pharmacokinetic advantage, it leads to clinically meaningful outcomes for a broader group of individuals.



ruby®

Customizable Lipid Architecture

A molecular platform that can be adapted to:



Different
omega-3
concentrations



Varying
phospholipid
ratios



Specific
health
applications

This flexibility allows alignment with targeted clinical strategies.



The Most Advanced Omega-3 Delivery Platform

Unlike fixed omega-3 ingredients or blends, Ruby-O is built to be customized, adapted, and combined based on the product's needs.

Synergy, Powered by Ruby-O®
can be combined with other nutrients like choline, folate, or additional lipids, helping brands create smarter, more complete formulas.



Adaptable Across Health Categories
Can support brain, heart, prenatal, sports, and healthy aging without changing the core technology.



Customizable by Design
Ruby-O can be adjusted to different omega-3 levels and ratios depending on the health goal, from daily wellness to more targeted applications.



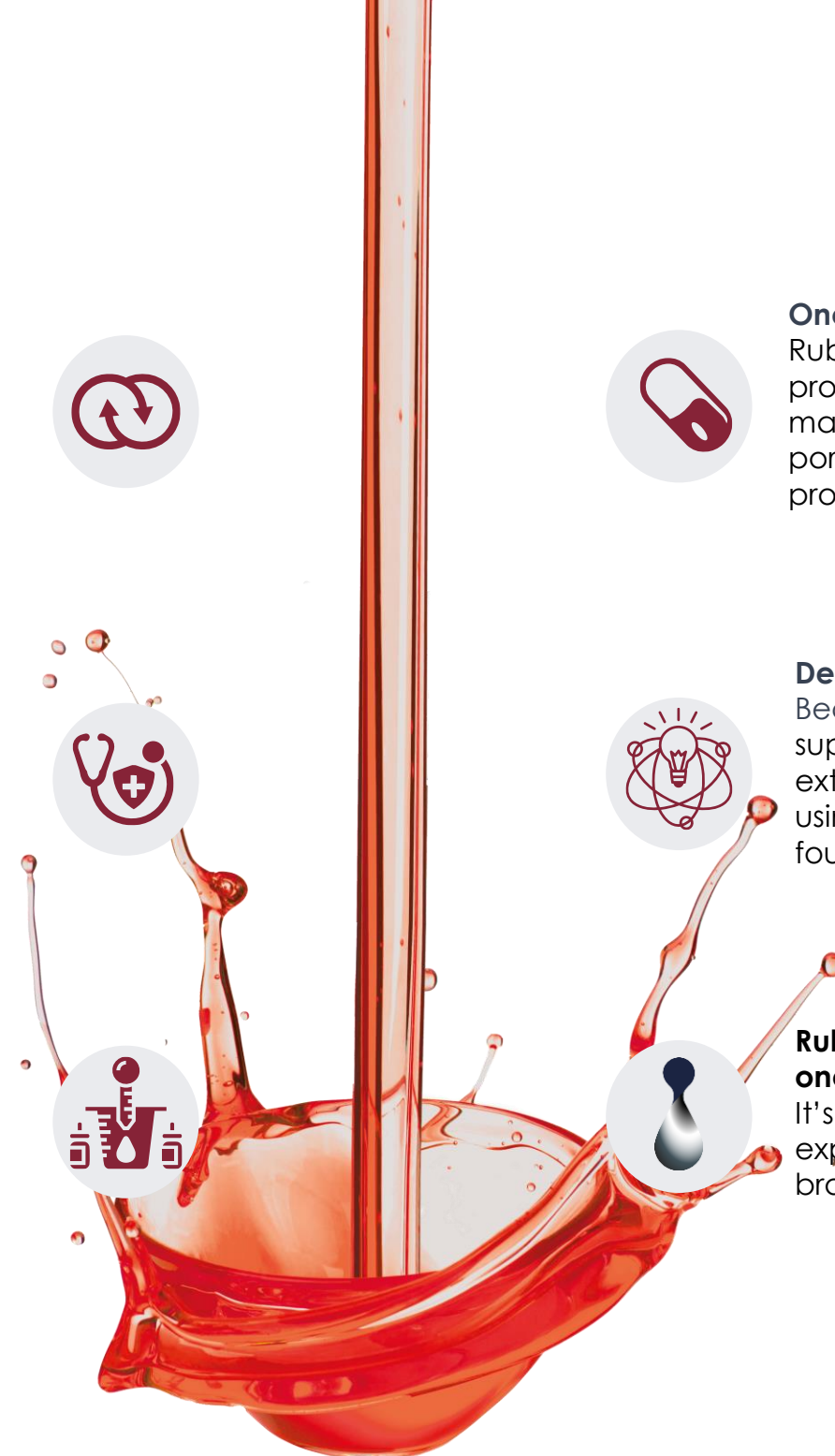
One Platform, Many Formats
Ruby-O works across different product formats and markets, making it easier to build portfolios instead of single products.



Designed for Innovation Pipelines
Because it's flexible, Ruby-O supports future launches, line extensions, and new concepts using the same proven delivery foundation.



Ruby-O is not a one-size-fits-all omega-3.
It's a platform that adapts, expands, and grows with brands.





5

Claims Brands Can Build On

Ruby-O® is more than an ingredient, it's a next-generation omega-3 platform brands can build on.



Designed to Work the Way Your Body Uses Omega-3

Inspired by biology, not chemistry.
Ruby-O is designed around how omega-3 appears in nature and how the body recognizes and utilizes lipids, supporting smarter absorption and use.

1



More Benefit per Serving

Smarter delivery, not higher doses.
Ruby-O focuses on omega-3 efficiency, delivering more functional benefit per mg and enabling fewer capsules with meaningful outcomes.

2



Improves Omega-3 Levels in the Body

What matters is what your body builds.
Ruby-O demonstrated **34% greater omega-3 incorporation efficiency**, measured by the Omega-3 Index per mg of EPA+DHA, versus standard fish oil.

3



Broader Health Signals

Omega-3 works systemically, not in silos.
Improved omega-3 utilization supports broader cardiometabolic signals, enabling more holistic wellness positioning beyond a single marker.

4



Helps More People Reach Healthy Triglycerides

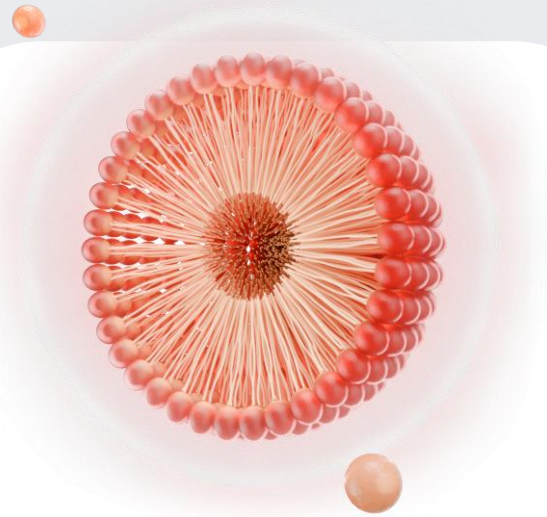
Designed to close the omega-3 response gap.
In a 12-week clinical study, Ruby-O® Balance achieved up to **3× greater triglyceride target attainment** versus standard fish oil, despite a lower omega-3 dose.

5

Based on a 12-week clinical study comparing Ruby-O® Balance with standard fish oil. "Up to 3×" refers to triglyceride **target attainment at predefined thresholds (≤ 166 , ≤ 156 , ≤ 150 mg/dL). Omega-3 efficiency refers to **34% greater omega-3 incorporation**, measured by the Omega-3 Index per mg of EPA+DHA*



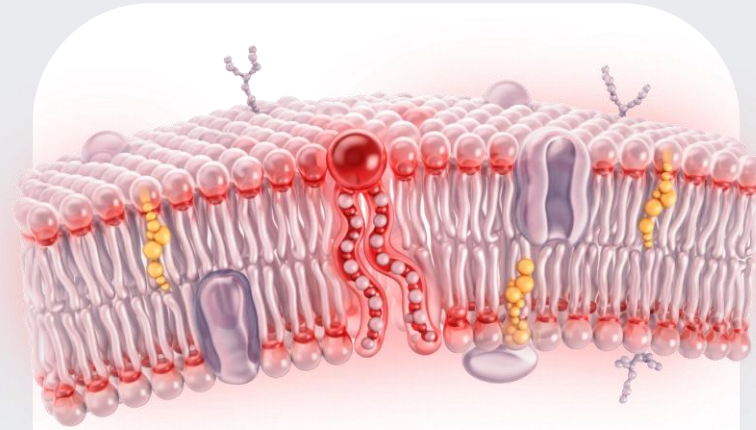
Advantage: Summary



Biomimetic Integration

Uses natural pathways to integrate into cell membranes, unlike synthetic delivery systems.

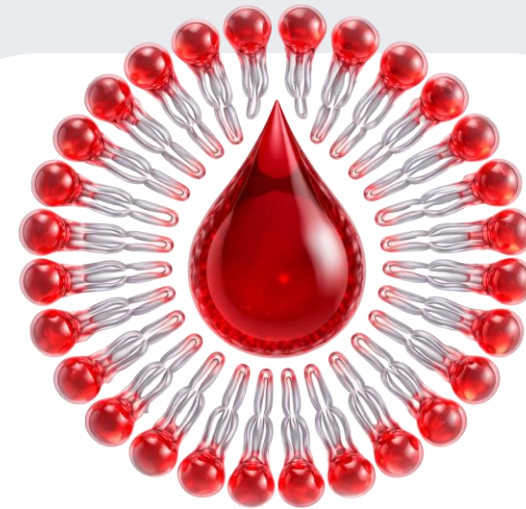
1



Bioavailability Engine

Natural phospholipid emulsification forms micelles that enhance the delivery of difficult, lipophilic ingredients.

2



Therapeutic Synergy

The carrier itself is bioactive. It is not an inert excipient; it actively contributes to resolving inflammation.

3



(Active Ingredient)



(Ruby-O)



(Systemic Benefit)

Engineer the Next Generation of Supplements

ruby^o

Next-Gen Enhanced Omega-3.



**Move beyond simple ingredients.
Partner with us to create
bio-efficient delivery systems that
solve the bioavailability crisis.**

Partner with us to formulate
your Ruby-O synergist.

G NotebookLM

**Contact Us for
Formulation Inquiries**

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science@ruby-o-ingredients.com

Designed to work the the way your body needs it to be. Exactly as nature intended.

Ready to Build with Ruby-O®?



Talk to our Experts!

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