



Rovimax[®]

Building a
strong immune system

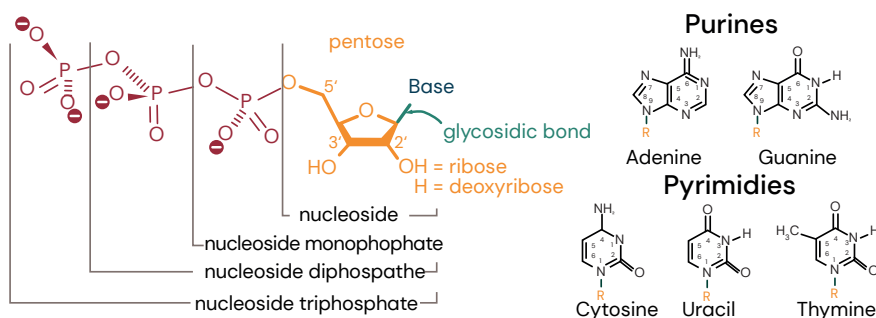
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What is Rovimax®?

Rovimax® is the most concentrated, purified and balanced nucleotide solution in the aquaculture market.

Commonly referred to as 'building blocks of life', nucleotides (NT) are semi-essential nutrients for optimal health and performance. Structurally, they consist of a nitrogenous base (purine or pyrimidine), a pentose sugar (ribose or deoxyribose), and one to three phosphate groups. NT can be made *de novo* or salvaged, but these processes are complex, take time and have high energy demands. Rovimax® supplementation delivers free, biologically available nucleotides quickly and directly to the gut with minimal energy investment for bringing maximum benefits in fish and shrimp.



Benefits of Rovimax®

Rovimax® has documented benefits in a range of aquatic species, including salmonids, shrimp, tilapia, bass, bream, and others.

- Improves survival.
- Improves stress and disease resistance.
- Improves growth performance, especially during periods of high growth rates.
- Supports fishmeal reduction in aqua feeds.
- Contributes to sustainability, in part by reducing the risk of antimicrobial resistance and improving lifetime performance.

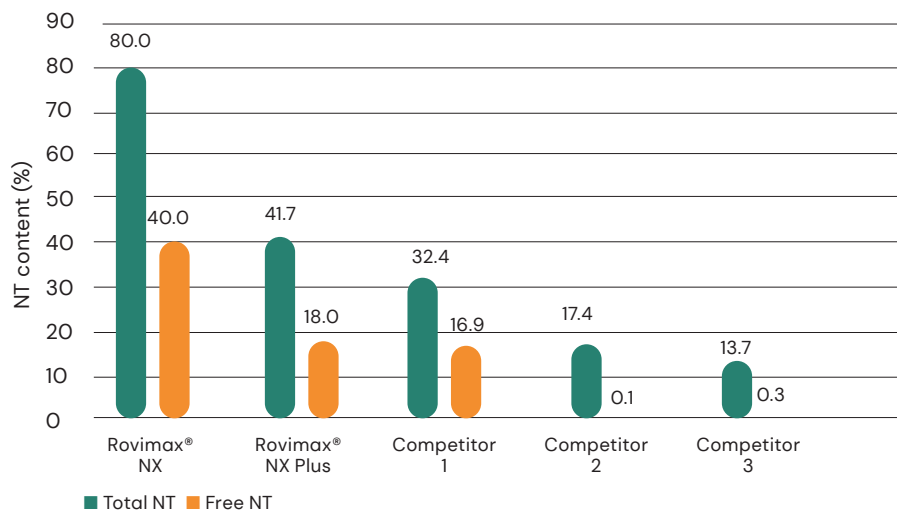
Mode of action

- Immune modulation
- Immediate provision of NT in rapidly dividing tissues e.g. gastrointestinal tract and immune system
- Energy sparing effect
- Contributes to energy metabolism (e.g. ATP, cAMP)
- Acts as a palatability enhancer

Not all nucleotide products are created equal

Whereas 'total' NT refers to the absolute nucleic acid content, 'free' NT represents those that are not attached to nucleic acids. Free NT have many benefits:

- Immediately available to the animal with minimal energy investment
- Quickly absorbed and utilized in the gut, which has limited capacity to synthesize NT

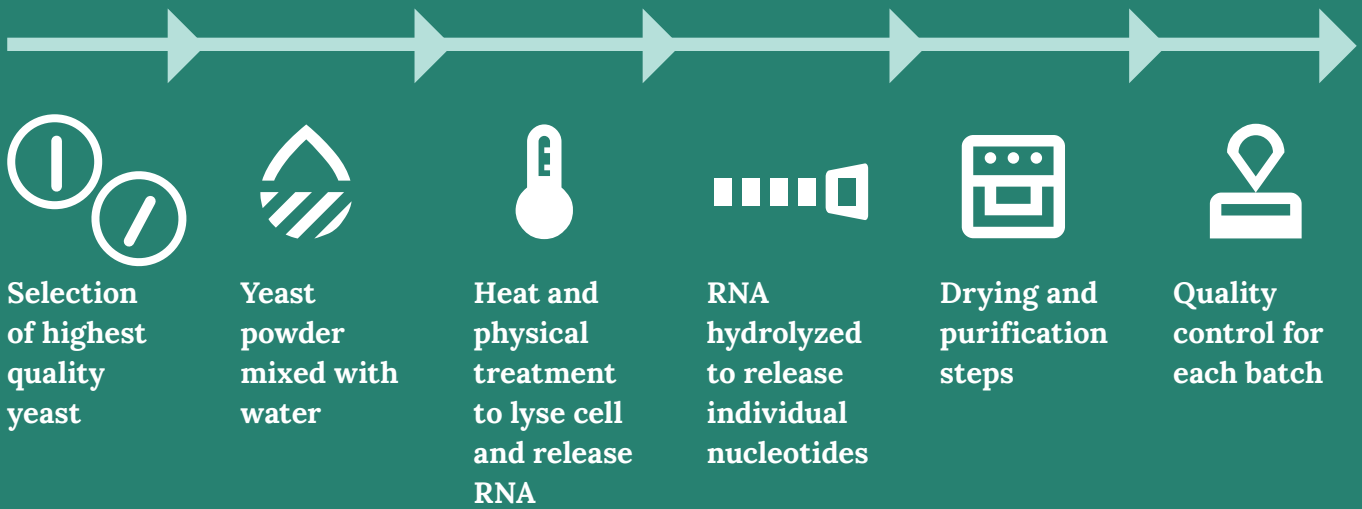


Benchmarking of NT products on the market, analysed by HPLC methods.

NOTE: many products lack clear documentation or do not differentiate between 'total' and 'free' NT



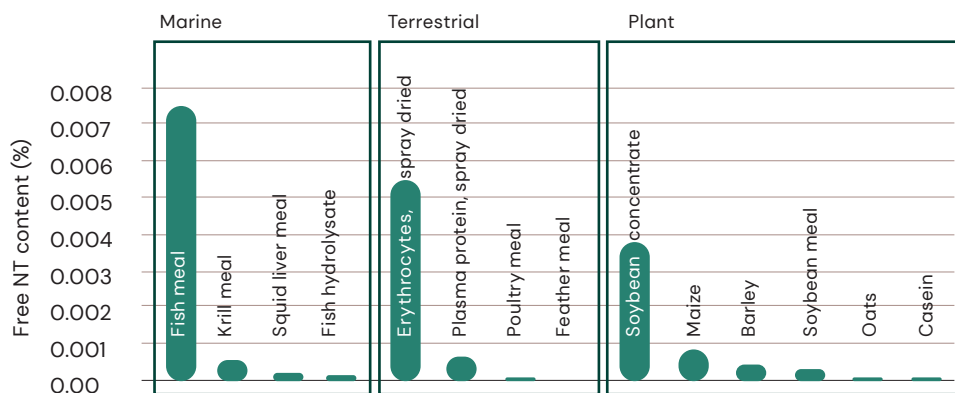
The unique production process of Rovimax® ensures the highest product quality and consistency.



The strictly controlled production flow has a number of benefits, including:

- Standardized steps for traceability and consistency
- Free of organic solvents, eliminating the risk of contamination
- Multiple quality control points, ensuring minimum specifications are met
- Builds trust and credibility as the leading supplier of high quality nucleotides.

Did you know: Raw materials contain minor NT concentrations, although this is variable. Ingredients from animal sources, including fishmeal, typically have a higher NT content, whilst plant proteins have the lowest. As feed formulations move away from fishmeal, modern aquafeeds have reduced NT, which must be supplemented.



Using Rovimax®

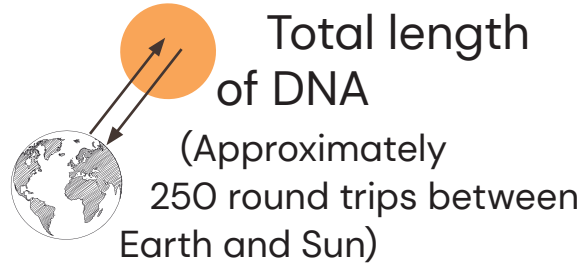
	Rovimax® NX	Rovimax® NX Plus
Total nucleotides (min.)	≥ 80%	≥ 40%
Free nucleotides (min.)	≥ 40%	≥ 18%
Species	Fish and shrimp	Fish and shrimp
Application	Via premix	Via premix or straight
Dosage (salmonids)	375 – 800 g/ t feed	750 – 800 g/ t feed
Dosage (other)	150 – 800 g/t feed	150 – 800 g/t feed

All living animals, including fish and shrimp, have a unique genome. This genetic code is described by DNA and translated to proteins by RNA. NT are an integral component of both nucleic acids.

Did you know,

in an adult human...

72 trillion m



2 m

Length of DNA in a single cell

3.2 billion

base pairs in genome

6.4 billion

NT in each cell (exc. those involved in energy production)

36 trillion

Average number of cells

2.3×10^{23}

Total NT in human body

(230, 400, 000, 000, 000, 000, 000, 000 or 230 billion trillion)



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