



- + **Faster sleep onset**
- + **Circadian balance**
- + **Neuro-metabolic support**

RiboCARE[®] SLEEP

Supports **faster sleep onset** and **quality**, promoting physiological sleep regulation.

WHAT IS RiboCARE[®] SLEEP?

RiboCARE[®] SLEEP is a nucleotide-based functional ingredient derived from yeast, designed to support physiological sleep regulation. Rich in 5' AMP and UMP, it acts on key metabolic and neurophysiological pathways involved in sleep-wake balance.

Beneficial effects for different scopes:



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SCIENTIFIC EVIDENCE



SCIENTIFIC RATIONALE

Sleep regulation relies on a complex interplay between:

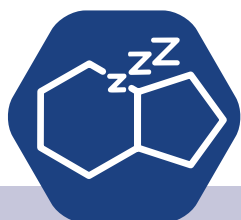
- Neurotransmitters (GABA, serotonin, melatonin)
- Adenosine signaling (sleep pressure)
- Brain energy metabolism and circadian rhythm
- Nucleotides support these physiological processes involved in sleep-wake regulation



EVIDENCE FROM LITERATURE

Nucleotide-based nutritional interventions have shown:

- Reduced sleep onset latency
- Improved sleep efficiency
- Increased total sleep time
- Reduced nocturnal awakenings
- Supporting a role in sleep quality and circadian regulation



ADENOSINE & SLEEP PRESSURE

Adenosine is a key mediator of sleep pressure, accumulating during wakefulness and promoting sleep onset.

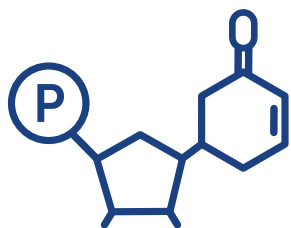
- 5' AMP contributes to adenosine related pathways, supporting the natural transition to sleep



NIGHT-TIME METABOLISM

During sleep, the brain undergoes intense metabolic activity:

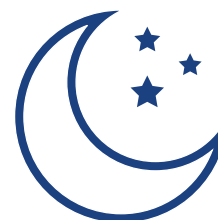
- Energy restoration
- Neuronal regulation
- Cellular recovery
- Nucleotides support nighttime cellular metabolism and brain energy balance



Nucleotides



Adenosine



Sleep quality

The clinical evidence cited refers to published studies on nutritional formulations containing nucleotides and is not directly attributable to RiboCARE® SLEEP.

Selected references:

Shona L. Halson et al., *Nutrients*, 2021, Optimisation and Validation of a Nutritional Intervention to Enhance Sleep Quality and Quantity.
Javier Cubero et al., *Nutritional Neuroscience*, 2009, Improving the quality of infant sleep through the inclusion at supper of cereals enriched with tryptophan, adenosine-5'-phosphate, and uridine-5'-phosphate.