



NAD⁺ (Nicotinamide Adenine Dinucleotide)

Provides energy | Boosts immunity | Anti-aging

 READLINE

NAD⁺

Nicotinamide Adenine Dinucleotide

CAS

53-84-9

Molecular Weight

663.43

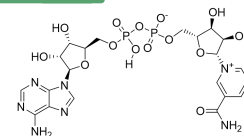
Molecular Formula

C₂₁H₂₇N₇O₁₄P₂

Appearance

White to off-white powder

Structure



Product Information

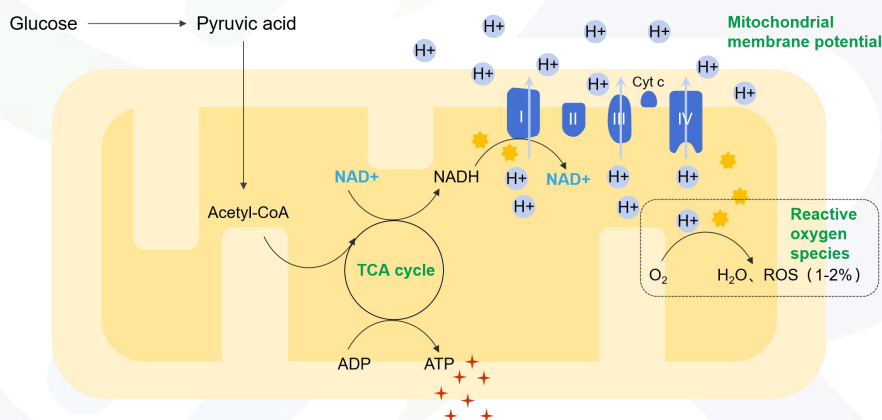
NAD⁺ (Nicotinamide Adenine Dinucleotide) is an essential coenzyme found in all living cells, playing a critical role in energy metabolism, DNA repair, and cellular signaling. As a key regulator of mitochondrial function and sirtuin activation, NAD⁺ levels naturally decline with age, contributing to metabolic dysfunction, reduced cellular resilience, and accelerated aging. Studies have shown that NAD⁺ supplementation provides multiple benefits to the body, including boosting energy metabolism, slowing aging, improving cognitive function, enhancing muscle function, and reducing inflammation.

Mechanism

NAD⁺ boosts ATP by shuttling electrons in mitochondria. It grabs electrons from broken-down nutrients (as NADH) and feeds them into the energy chain, powering tiny pumps that make ATP. This keeps the cellular batteries fully charged.

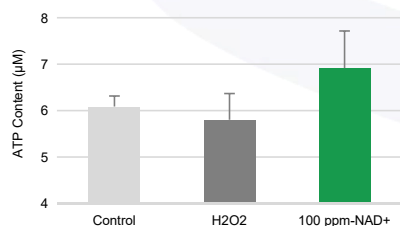
NAD⁺ acts like the body's "energy manager":

- ✓ Charges cells (increases ATP)
- ✓ Maintains power stations (protects mitochondria)
- ✓ Calms firestorms (fights inflammation)



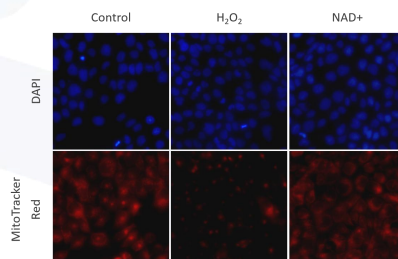
Efficacy

NAD⁺ can promote ATP production



Experiment conditions: Control: Cell culture medium; Model group: H₂O₂; Test group: 100 ppm NAD⁺

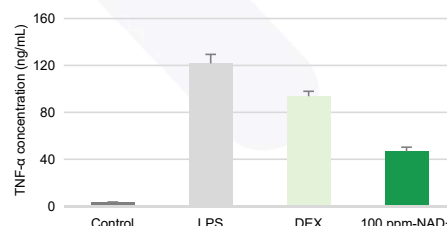
Result: 100 ppm NAD⁺ can promote ATP production by 19%.



Experiment conditions: Control: Cell culture medium; Negative control: H₂O₂; Test group: 10 ppm NAD⁺

Result: 10 ppm NAD⁺ has a restorative effect on mitochondrial damage.

NAD⁺ can inhibit inflammatory factors



Experiment conditions: Cell: RAW264.7; Control: Cell culture medium; Negative control group: LPS; Positive control group: DEX; Test group: 100 ppm NAD⁺

Result: 100 ppm NAD⁺ has an inhibition rate of 62% on TNF-α inflammatory factor.

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ABOUT US

READLINE is a bio-tech company focusing on developing and manufacturing active ingredients for cosmetics, nutritional supplements and pharmaceuticals in a green and sustainable manner. We are driven by a shared value to enable customer success with high quality green active ingredients, from making to using, from health to beauty.

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