



Hughes
Biotechnology

Hughes proudly swept multiple Gold Medals at international invention expos



Water soluble. Easily absorbed
World-leading polyphenols for precision health

RenoVital™

1500% | *Most bioavailable apigenin*
NAD⁺ boost, sleep support, stress relief

- 18,400X aqueous solubility
- 15.5X superior bioavailability
- Scientific proven efficacy
- International innovation awards



High solubility
High bioavailability

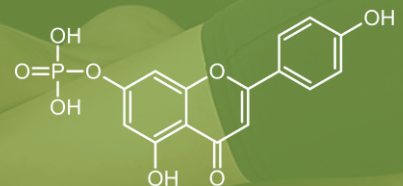


Small molecule
Fast absorption



Efficient delivery
Maximum efficacy

RenoVital™ — a breakthrough fermented chamomile polyphenol powered by RenoSorb™ postbiotic exo-delivery technology. Standardized with highly water-soluble apigenin phosphate, it ensures superior absorption and efficacy, unleashing nature's restorative power. By inhibiting CD38/NADase, RenoVital™ restores NAD⁺ balance, revitalizes mitochondrial energy, and supports cellular longevity. It also promotes relaxation and restful sleep through the GABAergic pathway.



Apigenin phosphate

RenoVital™

Most bioavailable apigenin

NAD⁺ boost, sleep support, stress relief



NAD+ BOOST



SLEEP SUPPORT



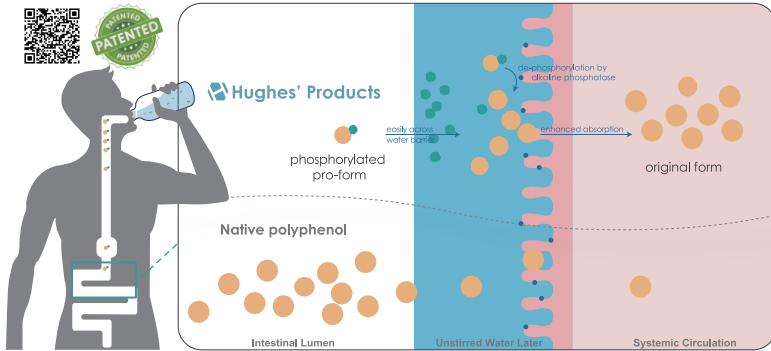
STRESS RELIEF



ANTI-INFLAMMATION

RenoSorb™ Technology platform

Next Generation pharma-grade postbiotics exo-precursor delivery technology



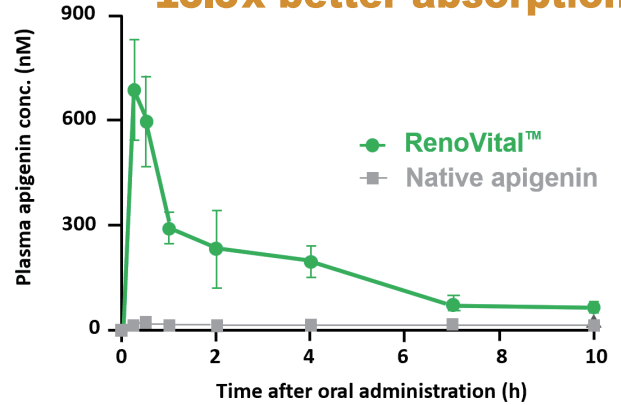
Vitafoods Europe 2023 Startup Innovation Challenge Award Finalist

2025 Gold Award Winner, Taipei Biotech Awards — The Biotech Oscars “Innovative Technology Award (Applied Biotechnology)”

2023 Top 5 Global Finalist, Vitafoods Europe Startup Challenge Award “Most Innovative Technology Supporting the Nutraceutical Industry”

Pharmacokinetic profile

15.5x better absorption



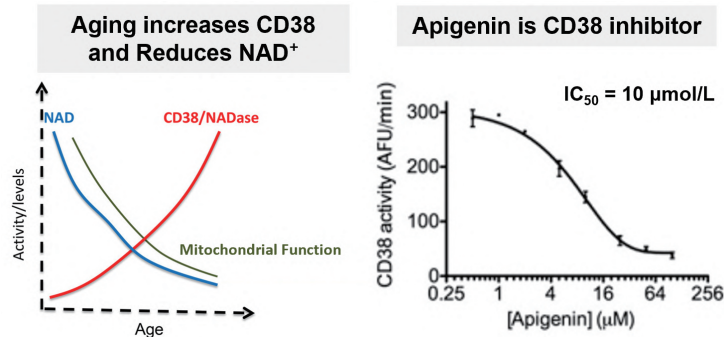
Mean plasma concentration-time profiles of apigenin in rats after oral administration of native apigenin and RenoVital™ at 185 μmol/kg. Data are mean ± SE (n = 4).

Antioxidants 2024, 13, 1530

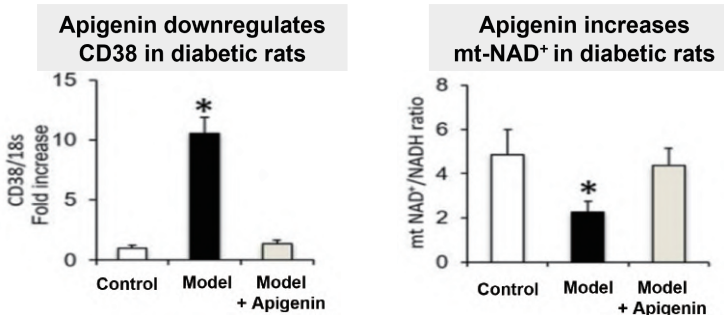
Scientific evidence

Mitochondrial NAD⁺ booster

Combat age-related NAD⁺ decline via CD38 inhibition



Apigenin is CD 38 inhibitor. (A) CD38 expression increases with aging, leading to NAD⁺ decline and mitochondrial dysfunction. (B) Apigenin suppresses CD38 activity in A549 cells (Mean ± SD, n=3). *Diabetes, 62(4), 1084-1093*

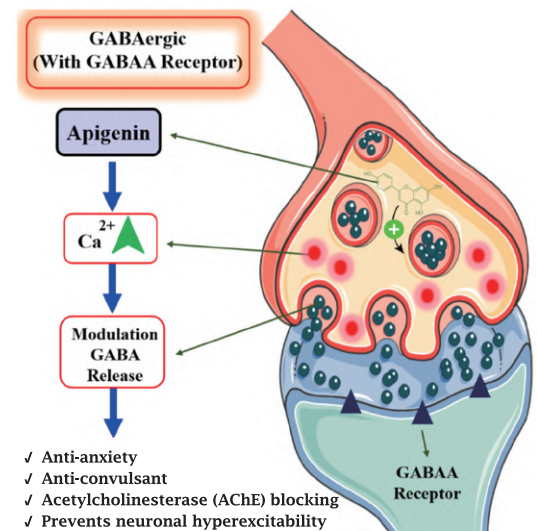


Apigenin restores cellular NAD⁺ balance and activates Sirt3 by inhibiting CD38 in a diabetic rat model. (A) CD38 mRNA levels in the renal cortex (RT-PCR, n=6). (B) Mitochondrial NAD⁺/NADH ratio (n=6). *Aging (Albany NY), 12(12), 11325.*

Scientific evidence

Better Sleep, Less Stress

Exerts Sedative Effects via the GABAergic Pathway



Apigenin modulates the GABA_A receptor to promote relaxation and sleep, enhancing chloride influx to calm neural activity. It maintains BDNF/GDNF and reduces TNF-α and IL-6, supporting mood stability. In mice, apigenin prolonged pentobarbital-induced sleep significantly (p < 0.01). *Archives of pharmacol research, 35(2), 367-373.*

Recommended dose: 100-200 mg



ISO 22000

HALAL

Vegan

GMO

Gluten

ETO

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