



Zylaria[®]

IT'S TIME TO RE-THINK
RELAXATION & SLEEP QUALITY

nulivscience.com

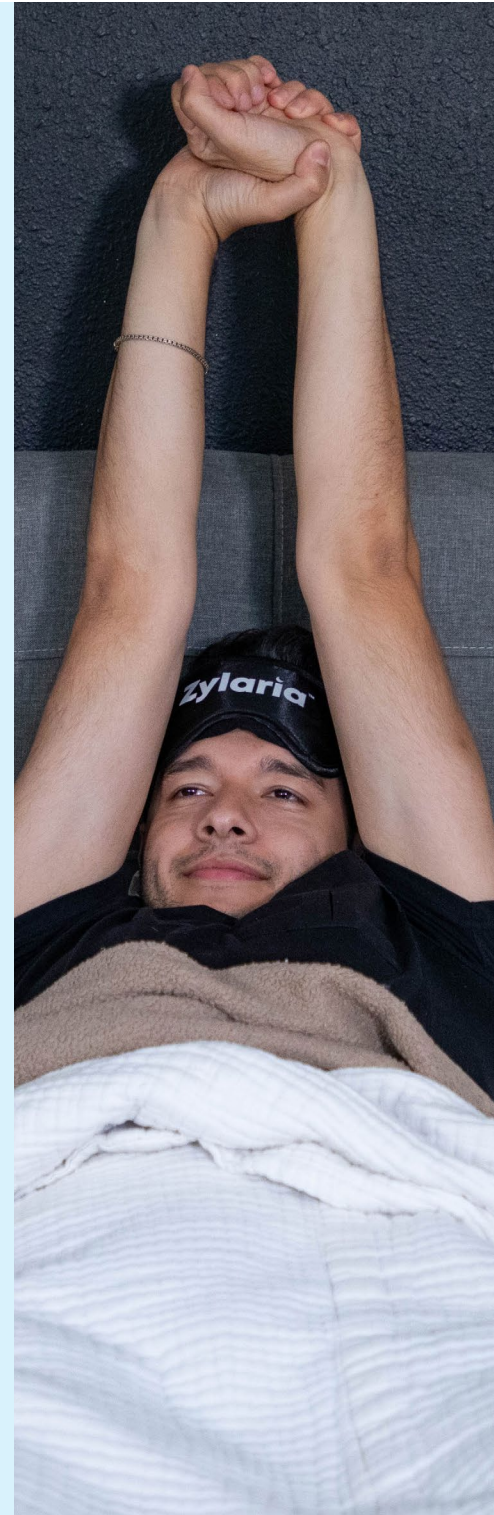
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We are committed to the dissemination of accurate and unbiased information. Our goal is to contribute to the understanding of its potential benefits and limitations. For any inquiries, clarifications, or further information, please do not hesitate to contact us.

Thank you for your interest in our research overview.



DISCOVER ZYLARIA®

Zylaria® is a botanical ingredient made from extracts of *Xylaria nigripes*, *Panax notoginseng*, and *Cuscuta chinensis*.

Zylaria® involves NuLiv Science's proprietary *Xylaria nigripes* extract produced by a patented fermentation technology that grows the *Xylaria nigripes* mycelia in fermentation vats. The unique composition of the three components of Zylaria® provides pathways to restful sleep and relaxation.

KEY BENEFITS



PROMOTES
RELAXATION*



ELEVATES
MOOD*



BENEFITS SLEEP
LATENCY & QUALITY*

HOW ZYLARIA® WORKS

Zylaria® has completed 6 *in-vitro*, support GABA, a calming neurotransmitter, in brain cells. This could have positive effects on sleep, mood, and relaxation. These studies suggest potential support for GABA by helping slow the breakdown of GABA through an enzyme called GABA-T. The studies also suggest that Zylaria® may help activate an enzyme called GAD, which converts glutamate into GABA. Overall supporting GABA availability in brain cells.

The inclusion of *Xylaria nigripes* extract in Zylaria® includes genistein³, a potential enhancer of brain-derived neurotrophic factor (BDNF), which contributes to neuron health, mood, and cognition¹. Although the effect of Zylaria® on BDNF and the HPA axis isn't studied directly, genistein suggests a potential to support BDNF levels and mood. Given BDNF's complexity influenced by various factors, Zylaria® should be considered part of a comprehensive wellness approach for sleep and mood support.*



DEVELOPING ZYLARIA®

Zylaria®'s inception begins with an exploration of *Xylaria nigripes*, a rare fungus known for its therapeutic calming potential, seeking a solution for restful sleep rooted in natural elements.

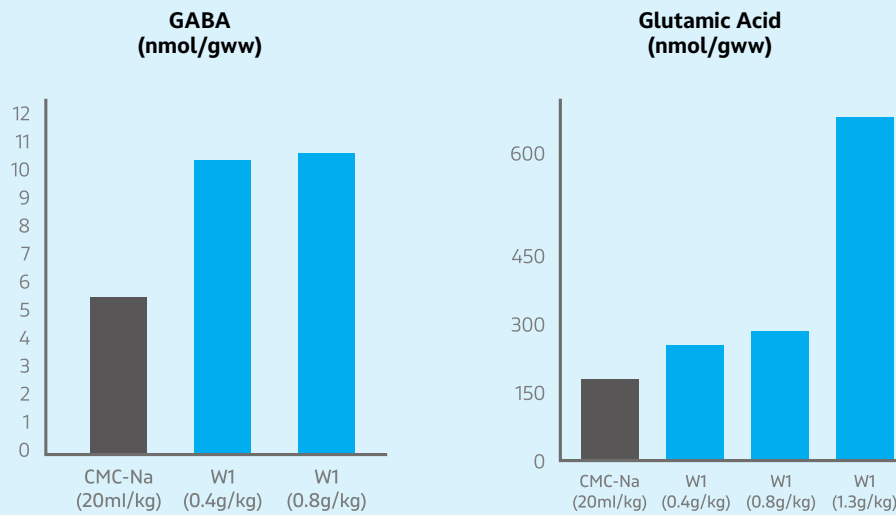
Xylaria nigripes became the linchpin of Zylaria®'s development. Its historical significance in traditional medicine as an adaptogen—capable of helping the body manage stress responses—paved the way for its inclusion in this sleep-supporting formulation. Its ability to soothe nerves and foster a calm mental state presented a promising avenue for promoting a serene sleep experience. This is where our research began, with specialized extracts of this mushroom and its potential in the sleep space.

Complementing this, *Panax notoginseng* and *Cuscuta chinensis* join the blend, each contributing unique benefits. *Panax notoginseng*, known for its adaptogenic qualities, assists in promoting relaxation, while *Cuscuta chinensis*, steeped in traditional herbal practices, aids in calming and supporting a serene mental state.

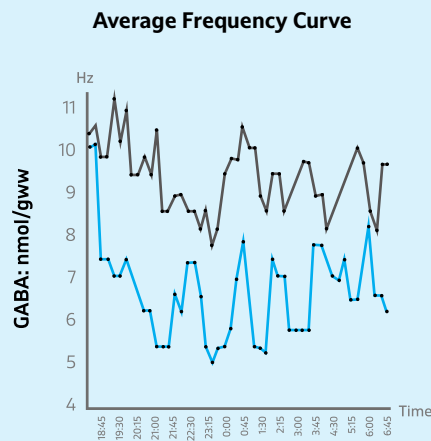
The combination of these meticulously selected elements of Zylaria® represents a commitment to a holistic approach. By integrating the calming properties of *Xylaria nigripes* with the complementary benefits of *Panax notoginseng* and *Cuscuta chinensis*, Zylaria® aims to create an optimal environment for achieving a rejuvenating and restorative sleep cycle.

STUDYING XYLARIA NIGRIPES - IN-VIVO

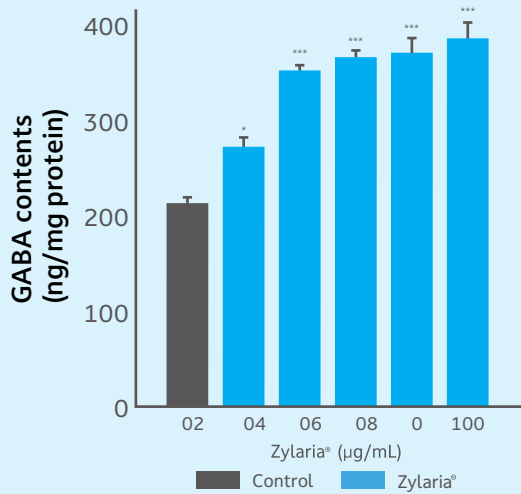
Effect of *Xylaria nigripes* on the brain, indicated by GABA and Glutamic Dehydrogenase uptake in mice.



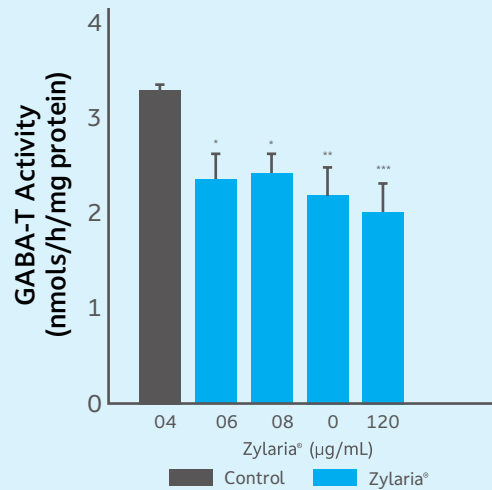
Effect of *Xylaria nigripes* on the brain, indicated by lowering brain wave activity that leads to improved quality of sleep.



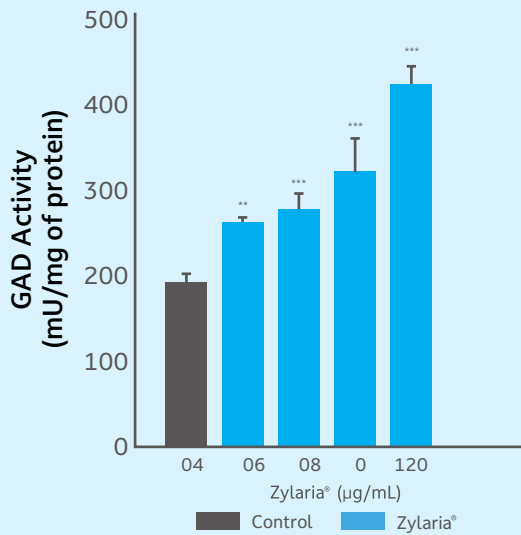
CLINICAL EFFECTS OF ZYLARIA® - IN-VITRO



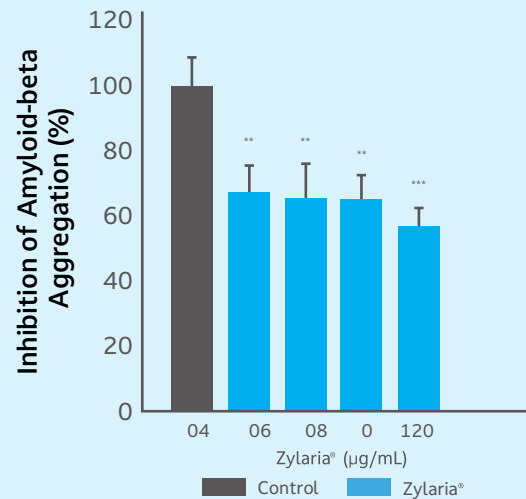
Effect of Zylaria® on GABA contents



Effect of Zylaria® on GABA Transaminase (GABA-T) Activity



Effect of Zylaria® on Glutamate Decarboxylase (GAD) Activity



Effect of Zylaria® on Inhibition of Aβ Aggregation

RESEARCH DISCUSSION

Zylaria® has demonstrated to support GABA, a calming neurotransmitter, in brain cells. This could have positive effects on sleep and mood. These studies suggest it may support GABA by potentially slowing the breakdown of GABA through an enzyme called GABA-T. The studies also suggest that Zylaria® may help activate an enzyme called GAD, which converts glutamate into GABA. Overall supporting GABA availability in the brain cells.

Request full product dossier for in-depth insights and additional discussion.



DOSAGE

500MG ZYLARIA® PER DAY



REFERENCE

1. Lenin D. Ochoa-de la Paz, Rosario Gulias-Cañizo, Estela D´AbrilRuíz-Leyja. et al. The role of GABA neurotransmitter in the human central nervous system, physiology, and pathophysiology. *Revistamexicana de neurociencia*. 2021, 22(2), p. 67-76.
2. Shi Yu-Feng, Yu Yan-Qin. The roles of glutamate in sleep and wakefulness. *Journal of Zhejiang University*. 2013, 42(5), p. 583-590.
3. Theresa E. Bjorness and Robert W. Greene. Adenosine and Sleep. *Current Neuropharmacology*. 2009, 7(3), p. 238–245.
4. M. Pan, H. Han, C. Zhong,Q. Geng. Effects of genistein and daidzein on hippocampus neuronal cell proliferation and BDNF expression in H19-7 neural cell line. *Journal of Nutrition, Health, & Aging*. 2012, 16(4), p. 389-394.
5. Barbara C. Monteiro, Suzana Monteiro, Maristela Candida, et al. Relationship Between Brain-Derived Neurotrophic Factor (Bdnf) and Sleep on Depression: A Critical Review. *Clinical Practice & Epidemiology in Mental Health*. 2017, 13, p. 213–219.
6. Zylaria® Product Dossier. NuLiv Science USA, Inc. (Request document to review)

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