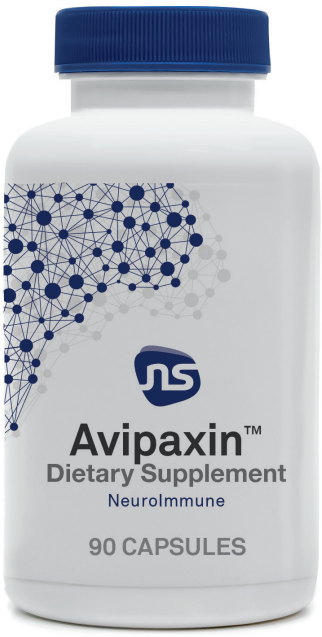
NeuroScience®



Avipaxin

Studied blend of ingredients proven to reduce pro-inflammatory cytokine activity and promote mental acuity*

Key Ingredients

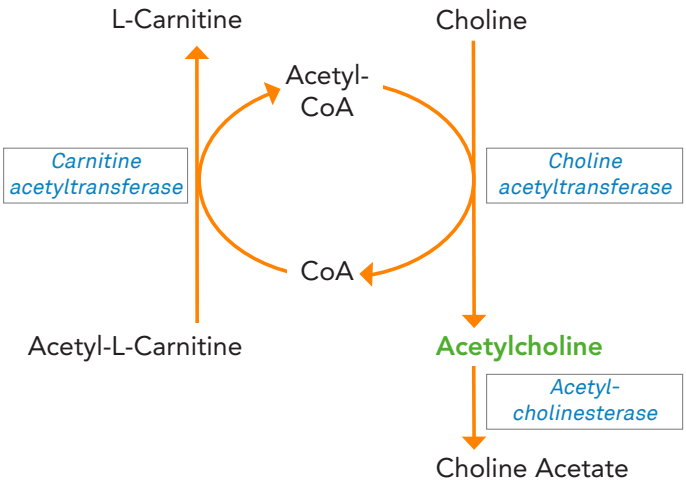
Acetyl-L-carnitine (ALC)	■ Provides an acetyl group required for **acetylcholine synthesis**[1]* ■ Derivative of L-carnitine shown to increase plasma and brain levels of L-carnitine[2,3]* ■ L-carnitine facilitates energy production in the mitochondria and provides antioxidant protection by scavenging reactive oxygen species and metal ions[3-5]*
Alpha-glyceryl-phosphoryl-choline (AGPC)	■ Choline donor and **precursor to acetylcholine**[6,7]* ■ A randomized, double-blind, placebo-controlled study found that alpha-GPC **improved cognitive scores** as measured by multiple standards[8]
Huperzia serrata (standardized to 1% huperzine A)	■ Acetylcholinesterase breaks down acetylcholine in the synapse[4] ■ Huperzine A is a potent and selective **acetylcholinesterase (AChE) inhibitor** which helps to decrease acetylcholine breakdown[9]* ■ A randomized, double-blind, placebo-controlled study found that huperzine A **significantly improved mini-mental status exam (MMSE) scoring**[10]*

The Science

- Acetylcholine is a neurotransmitter found throughout the peripheral and central nervous systems known for its importance in **attention**, **learning**, and **memory**[11]
- Acetylcholine released by the vagus nerve is essential to immune health due to its ability to **downregulate cytokine expression** in the spleen, liver, and gastrointestinal tract[12]

Acetylcholine Pathway

Green = Biomarker
Blue = Enzyme



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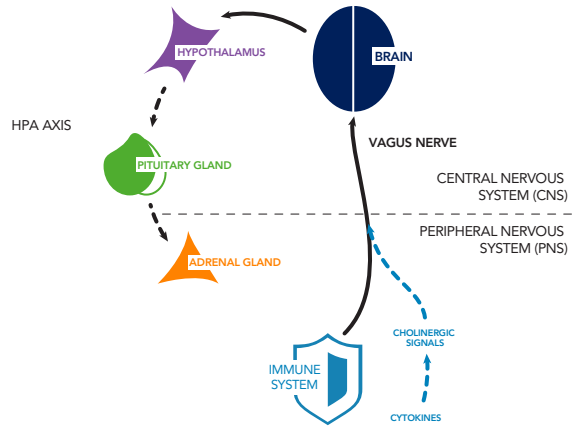
MORE SCIENCE BEHIND AVIPAXIN

Figure 1. Cholinergic Signaling



Connecting the brain and immune system

In the central nervous system, cholinergic signaling is involved in many critical processes[11]

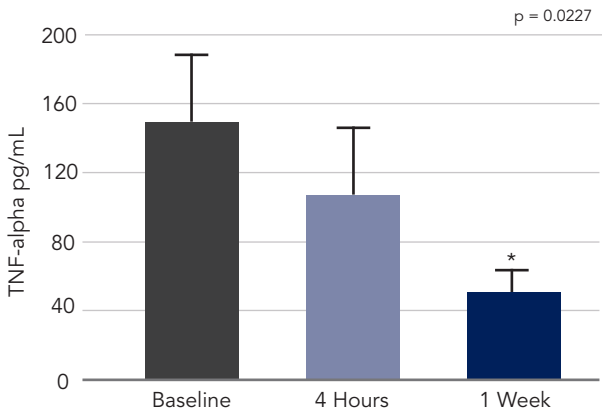
- These include mental acuteness through aspects like attention, learning, memory, and the stress response[11]
- Additionally, acetylcholine is vital for immune health and regulation[12]

Cholinergic signaling from the vagus nerve facilitates communication between the brain and immune system[12]

- Afferent vagal nerve fibers detect cytokines in the periphery and signal to the central nervous system about immune activation[12]
- Integration of vagal signals in the brain activates the HPA axis, completing the communication loop between the PNS and CNS[3]

Avipaxin contains precursors ALC and AGPC along with *Huperzia serrata* to support acetylcholine and balance the immune system[1-7]*

Figure 2. Avipaxin Lowers TNF-Alpha Levels*



Impactful results in pre-clinical trials

Avipaxin supports immune function by decreasing six pro-inflammatory markers[13]*

- In a controlled pre-clinical trial, Avipaxin was tested in eleven healthy subjects for immune function and cognitive support[13]*
- Significant decreases were seen for six major pro-inflammatory markers, including TNF-alpha (Figure 2.)[13]*

Pre-clinical trial participants reported improved mental acuity with Avipaxin[13]*

- Subjects of the pre-clinical trial reported feeling more clear-headed, more focused, and waking refreshed and alert[13]*

Avipaxin has been shown in a pre-clinical trial to support both immune function and mental acuity[13]*

NeuroScience®

Item Number	Available Sizes	Serving Size
20040	90 Capsules	3 Capsules

Find the right supplement with NeuroSelect

Learn more at www.neuroselect.com

All NeuroScience products undergo rigorous third-party testing to guarantee label claims of each ingredient and the absence of heavy metals, pesticides, residual solvents, and microbes

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Kavinace® OS

Target the cellular consequences of sleeplessness with a formulation proven to significantly improve both sleep onset and efficiency after the first dose[1,2]*

Patient Profile

- ☐ Requires quick relief from sleeplessness
- ☐ Needs help falling asleep
- ☐ Unhealthy lifestyle habits
- ☐ Known or suspected immune activity

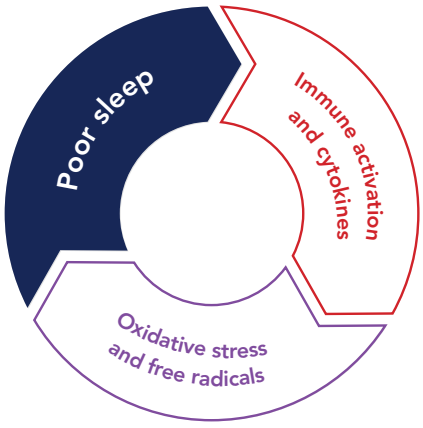
Key Ingredients

L-theanine	■ Amino acid that acts as a glutamate receptor antagonist[3]* ■ In a double-blind, placebo-controlled study, L-theanine was shown to **significantly reduce stress**[4]*
Astaxanthin	■ Carotenoid that can have inhibitory effects on macrophage activity, IL-1 and IL-6 expression, and Nf-kB phosphorylation, impacting chronic and acute immune responses[17,18]* ■ Shown to **significantly improve sleep onset** when taken with zinc[6]*
Magnesium (as magnesium bisglycinate chelate)	■ Cofactor for multiple mechanisms in the body including the **production of serotonin** and acting as a **GABA agonist**[7]*
Zinc (as zinc bisglycinate chelate)	■ Essential micronutrient cofactor for the antioxidant enzyme **superoxide dismutase (SOD)**[8]* ■ Zinc deficiency is directly associated with increased biomarkers of oxidative stress and inflammatory cytokines[9]
Melatonin	■ **Antioxidant** and hormone important for the **regulation of the sleep-wake cycle**[10]*

The Science

- The nervous system works with the immune system to regulate the sleep-wake cycle and the immune response[11,12]
- During daytime activity, the immune system generates free radicals and depletes antioxidants[13]
- During bedtime hours, accumulated free radicals can stimulate the immune system with the adaptive immune system at its most active[12]
- Poor sleep has been shown to increase oxidative stress markers, perpetuating the Immune-Sleep Cycle[13-15]

The Immune-Sleep Cycle



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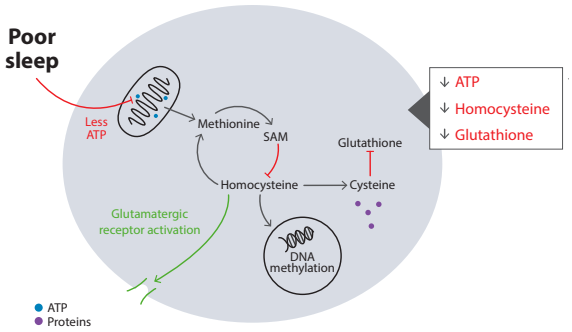
MORE SCIENCE BEHIND KAVINACE® OS

Figure 1. Cellular Impact of Sleep Deprivation



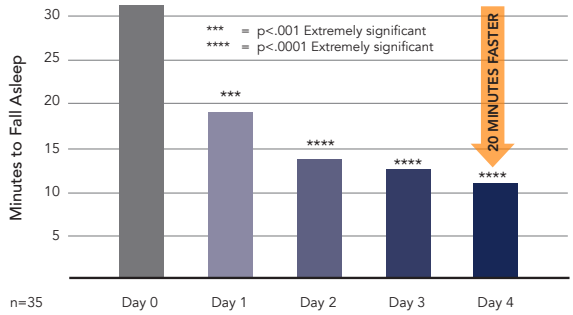
One night of poor sleep changes cellular metabolic function (Figure 1.)[1]

Metabolic changes worsen the Immune-Sleep Cycle, perpetuating more sleepless nights[1]

- Decreased antioxidant capacity increases susceptibility to negative effects of free radicals and oxidative stress[1]
- Oxidative stress modulates immune regulators like Nf-kB[16]
- Wake promoting substances (hormones and neurotransmitters) respond to immune activation and further disrupt sleep[11, 15]

The uniquely formulated blend of Kavinace OS comprehensively intervenes at every portion of the Immune-Sleep Cycle*

Figure 2. Kavinace OS Decreases Sleep Latency



Researched ingredient blend, proven results*

Study participants were prescreened for poor sleep (PSQI), received one serving of Kavinace OS at bedtime for seven days, and submitted a daily sleep diary

- **Fall asleep quickly.** Extremely significant reductions in sleep latency were reported after the first dose of Kavinace OS, with ongoing improvement through day four[2]
- **Sleep better.** Significant improvement in sleep efficiency, or total sleep time relative to time in bed, was reported after one dose of Kavinace OS[2]*

Kavinace OS provides quick relief from sleeplessness at the symptom and cellular level*

NeuroScience supplements undergo rigorous, product specific third-party testing to guarantee label claims of each ingredient and the absence of heavy metals, pesticides, residual solvents, and microbes

Suggested Use: Take 2 capsules at bedtime or as directed by your healthcare provider. Do not exceed suggested use

Supplement Facts

Serving Size: 2 Capsules
Servings Per Container: 30

Amount Per Serving		% Daily Value
Magnesium (as magnesium bisglycinate chelate)	25 mg	6%
Zinc (as zinc bisglycinate chelate)	15 mg	136%
Selenium (as selenomethionine)	200 mcg	364%
Melatonin	5 mg	†
Proprietary Blend L-theanine, Trans-resveratrol *(Polygonum cuspidatum)* (root), and Astaxanthin *(Haematococcus pluvialis).*	214 mg	†

† Daily Value not established.

Other ingredients: Vegetable capsule (hypromellose, water), organic rice concentrate, microcrystalline cellulose, dicalcium phosphate, citric acid, and glycine.

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Item Number	Available Sizes	Serving Size
20053	60 capsule	2 Capsules

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