NeuroScience®

Alpha GABA PM

Researched blend of botanicals and 400 mg of L-theanine shown to induce calming brain waves and naturally improve sleep during times of stress*

Patient Profile†

- ☐ Can't turn off the mind*
- ☐ Constantly feeling mentally engaged*
- ☐ Ruminating thoughts at bedtime*
- ☐ Need to mentally "downshift"*

Alpha GABA PM®
Dietary Supplement
Serotonin/GABA

60 CAPSULES

Key Ingredients

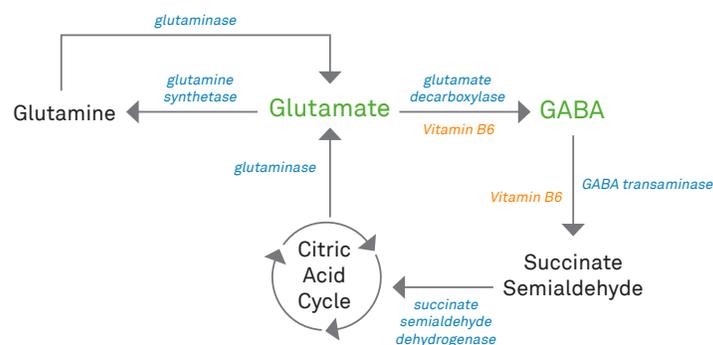| Ingredient	Details
L-theanine	■ Amino acid that acts as a glutamate receptor antagonist[1]* ■ L-theanine has been linked to the generation of **alpha brain waves**, indicating a state of **relaxation**[2]*
Melatonin	■ Hormone important for the regulation of the sleep-wake cycle[3]* ■ Supplementation with melatonin has been shown to **improve the onset of sleep**[4]*
Valerian *(Valeriana officinalis)* **root extract** (Valerenic acids 0.8%) (Micro-encapsulated)	■ Both *in vitro* and *in vivo* studies demonstrate valerian extracts **modulate GABA-A receptors**[5-8]* ■ Micro-encapsulation reduces valerian root odors
Lemon balm *(Melissa officinalis)* **leaf extract**	■ Botanical shown to inhibit the enzyme GABA transaminase, **which may increase levels of GABA** in the brain[9]* ■ Contains rosmarinic acid, **shown to normalize GABA and glutamate activity** altered by stress when combined with valarian root.[10,11]*
5-HTP (from *Griffonia simplicifolia* seed extract)	■ 5-hydroxytryptophan (5-HTP) crosses the blood-brain barrier and is a precursor to serotonin and melatonin[12] ■ Serotonin is important for **regulating mood** and **sleep-wake function**[13]

The Science
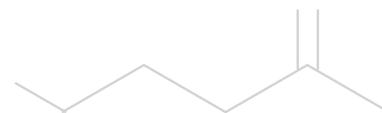
GABA

GABA is the primary inhibitory neurotransmitter in the brain[14]

- ■ GABA is important for **calm** and **sleep**[15,16]

GABA Pathway

glutaminase

Glutamine ← glutamine synthetase → **Glutamate** — glutamate decarboxylase (*Vitamin B6*) → **GABA**

glutaminase

Glutamate ← (*Vitamin B6*)

GABA → GABA transaminase → **Succinate Semialdehyde**

Citric Acid Cycle ← *succinate semialdehyde dehydrogenase* ← **Succinate Semialdehyde**
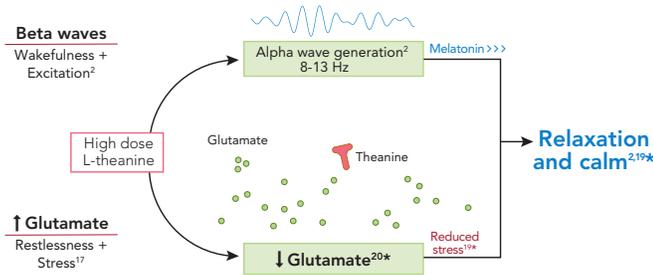
Green = Biomarker
Blue = Enzyme
Orange = Cofactor

† Symptom depictions represent a possible presentation based on scientific information and claims found on this sheet, references provided on reverse.

MORE SCIENCE BEHIND ALPHA GABA PM

Figure 1. Alpha Waves, L-theanine, and Stress

Beta waves
Wakefulness + Excitation[2]

High dose L-theanine

↑ **Glutamate**
Restlessness + Stress[17]

Alpha wave generation[2] 8-13 Hz — Melatonin >>>

Glutamate — Theanine

↓ **Glutamate**[20]*

Relaxation and calm[2,19]*

Reduced stress[19]*

High-dose L-theanine as a new approach

Alpha brain waves are naturally generated when an individual is calm and relaxed[2]

- In a placebo-controlled study, impactful amounts of L-theanine were shown to induce the generation of alpha brain waves in groups both with and without stress (Figure 1.)[2]*
- Melatonin has been shown to rapidly increase alpha brain waves[18]*

In a randomized, double-blind, placebo-controlled study, L-theanine intake led to significantly reduced stress[19]*
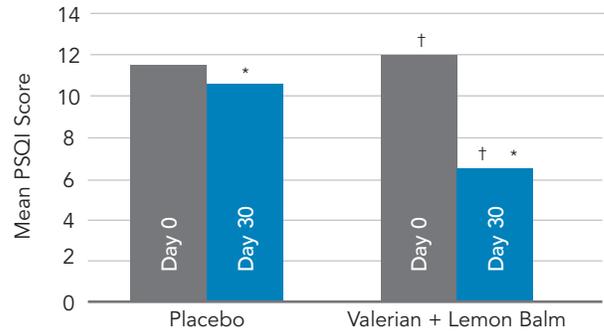
- L-theanine binds to receptors, blocking the attachment of glutamate, and at doses of 250 mg or more, lowers glutamate levels (Figure 1.)[1,20]*

Alpha GABA PM contains 400 mg of L-theanine and 3 mg of melatonin per serving to effectively calm the mind for sleep[1,2,4]*

Figure 2. A Pivotal Partnership

Low PSQI score = better sleep

* p<0.05
† p<0.001

Proven sleep botanicals

In a randomized, triple-blind, placebo-controlled, 30 day study, valerian and lemon balm extracts together significantly improved quality of sleep as measured by the Pittsburgh Sleep Quality Index (PSQI) (Figure 2.)[21]*

- Alpha GABA PM contains a blend of botanical extracts identical to the above study to naturally improve quality of sleep[21]*

A combination of valerian root and lemon balm was shown to significantly increase brain concentrations of GABA *in vivo*[22]*

- Proprietary extracting technique of whole lemon balm leaf provides improved mechanism capability*
- Valerian and lemon balm are naturally GABAergic botanicals[21,22]*

Alpha GABA PM contains proprietary whole lemon balm leaf extract and micro-encapsulated valerian root to improve onset and quality of sleep[21,22]*

Supplement Facts
Serving Size: 2 Capsules
Servings Per Container: 30

Amount Per Serving		% Daily Value
L-theanine	400 mg	†
Melatonin	3 mg	†
Proprietary Blend	530 mg	†
Valerian extract (*Valeriana officinalis*) (root) (0.8% valerenic acids), Lemon balm extract (*Melissa officinalis*) (leaf), and 5-hydroxytryptophan (from *Griffonia simplicifolia* seed extract).		

† Daily Value not established.

Other ingredients: Vegetable capsule (hypromellose, water), organic rice concentrate, and silica.

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NeuroScience®
www.neuroscienceinc.com
Osceola, WI 54020
+1-888-342-7272
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Item Number	Available Sizes	Serving Size
20042	60 Capsules	2 Capsules

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