

# Alpha GABA™

Ingredients to promote calm during times of anxiousness while supporting a healthy response to stress, day or night\*



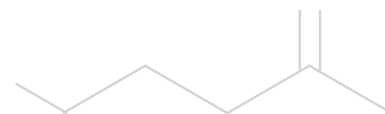
## Patient Profile†

- Need to "downshift" from feeling mentally engaged\*
- Feelings of anxiousness, seeking support for relaxation and calm\*
- Desire for help handling stress\*

## Key Ingredients

<p><b>L-theanine</b></p>	<ul style="list-style-type: none"> <li>■ Amino acid that acts as a glutamate receptor antagonist<sup>1*</sup></li> <li>■ L-theanine has been linked to the generation of <b>alpha brain waves</b>, indicating a state of <b>relaxation</b><sup>2*</sup></li> </ul>
<p><b>Ashwagandha</b> <i>(Withania somnifera)</i></p>	<ul style="list-style-type: none"> <li>■ Patented ashwagandha leaf and root extract that provides the highest amount of withanolides on the market (&gt;10% withanolides)</li> <li>■ Sensoril is backed by 12 clinical studies and has been shown to <b>significantly reduce stress and anxiousness</b><sup>3*</sup></li> </ul>
<p><b>Passionflower</b> <i>(Passiflora incarnata)</i></p>	<ul style="list-style-type: none"> <li>■ Botanical shown to bind to the GABA site of GABA-A receptors<sup>4*</sup></li> <li>■ Activation of GABA-A receptors are essential for <b>downregulating the hypothalamic-pituitary-adrenal (HPA) axis</b><sup>5*</sup></li> </ul>
<p><b>Lemon balm</b> <i>(Melissa officinalis)</i></p>	<ul style="list-style-type: none"> <li>■ Botanical shown to inhibit the enzyme GABA transaminase <i>in vitro</i>, which may increase levels of GABA in the brain<sup>6*</sup></li> </ul>
<p><b>L-tyrosine</b></p>	<ul style="list-style-type: none"> <li>■ Neuroprotective amino acid that provides antioxidant protection<sup>7,8*</sup></li> <li>■ Demonstrates <b>GABA-A agonist activity</b><sup>9*</sup></li> </ul>

## The Science



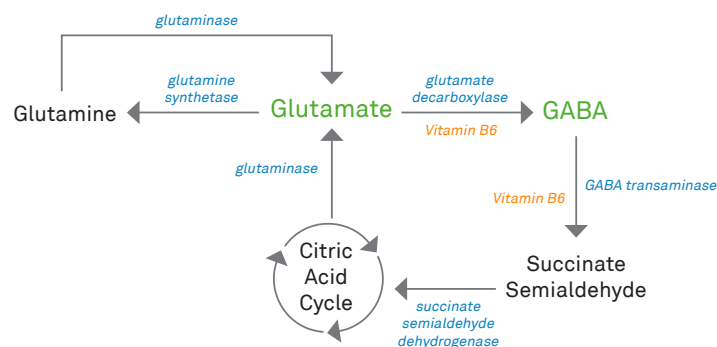
**GABA** is the primary inhibitory neurotransmitter in the brain<sup>10</sup>

- GABA is important for **calm** and **sleep**<sup>11,12</sup>

**Glutamate** is the primary excitatory neurotransmitter in the brain<sup>13</sup>

- Glutamatergic signaling underlies mechanisms related to anxiousness and stress<sup>14</sup>

## GABA Pathway



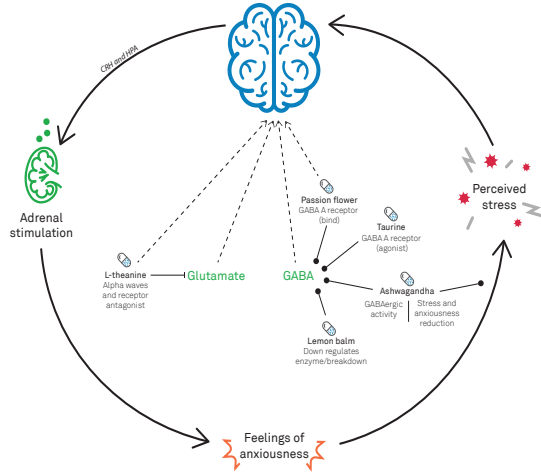
Green = Biomarker  
Blue = Enzyme  
Orange = Cofactor

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

\*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

# MORE SCIENCE BEHIND ALPHA GABA

Figure 1. Stress and Anxiousness



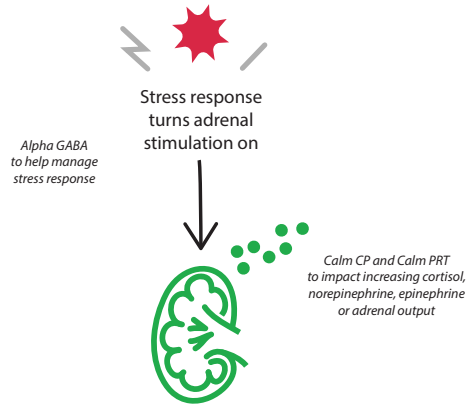
## Stress processing and the symptom cycle

### Stress, GABA, and the HPA axis

- GABA signaling inhibits corticotropin-releasing hormone (CRH) and glutamate signaling stimulates CRH<sup>15</sup>
- Stress increases CRH secretion, stimulating the hypothalamic pituitary adrenal (HPA) axis and adrenal gland production of cortisol and the catecholamines<sup>15</sup>
- Chronic stress causes neuroplastic changes in the paraventricular nucleus, decreasing GABA receptor expression and increasing glutamate receptor expression, perpetuating the stress response<sup>5</sup>

Alpha GABA provides a multi-faceted approach to stress management with ingredients to reduce symptoms of anxiousness while supporting a healthy stress response<sup>3,5\*</sup>

Figure 2. Stressed Induced Adrenal Output



## Complete stress support

### Alpha GABA contains ingredients to:

- Induce relaxing alpha brain waves and feelings of calm with a targeted neurotransmitter approach<sup>1,2\*</sup>
- Provide comprehensive HPA axis support for optimal stress management<sup>3,5\*</sup>

### Support the circadian rhythm for patients already feeling the “fight or flight” response by adding:

- |                                                                                                         |    |                                                                                           |
|---------------------------------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------------------|
| <b>Calm CP</b>                                                                                          | or | <b>Calm PRT</b>                                                                           |
| <b>Cortisol reducing blend<sup>16*</sup></b>                                                            |    | <b>Manage norepinephrine activity<sup>18*</sup></b>                                       |
| Elevated bedtime levels can disrupt sleep and is associated with increased abdominal fat <sup>17*</sup> |    | Elevated norepinephrine can perpetuate stress, anxiousness, and fatigue <sup>19,20*</sup> |



Item Number	Available Sizes	Serving Size
20057	90 Capsules	3 Capsules



## Stress disrupting sleep?

Consider Alpha GABA PM with a similar blend targeted for bedtime instead.

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

1. Kakuda T, et al. Biosci Biotechnol Biochem. 2002;66(12):2683-86.
2. Juneja L, et al. Trends Food Sci Tech. 1999;10:199-204.
3. Auddy B, et al. JANA. 2008;11(1):50-6.
4. Appel K, et al. Phytother Res. 2011;25(6):838-43.
5. Herman J, et al. Prog Brain Res. 2008;170:353-64.
6. Awad R, et al. Phytother Res. 2009;23(8):1075-81.
7. Kumari N, et al. Adv Exp Med Biol. 2013;775:19-27.
8. Shimada K, et al. Adv Exp Med Biol. 2015;803:581-96.
9. Kletke O, et al. PLoS One. 2013;8(4):e61733.
10. Petroff O. Neuroscientist. 2002;8(6):562-73.
11. Mohler H. Neuropharmacol. 2012;62(1):42-53.
12. Saper C, et al. Nature. 2005;437(7063):1257-63.
13. Meldrum BS. J Nutr. 2000;130(4S Suppl):1007S-15S.
14. Bermudo-Soriano C, et al. Pharmacol Biochem Behav. 2012;100:752-774.
15. Levy B and Tasker J. Front Cell Neurosci. 2012;6(24):1-13.
16. Calm CP Data on file. 2012. NeuroScience, Inc., Osceola, WI 54020.
17. Abraham S, et al. Obesity (Silver Spring). 2013;21(1):E105-17.
18. Calm PRT Data on file. 2006. NeuroScience, Inc., Osceola, WI 54020.
19. Meerlo P, et al. Sleep Med Rev. 2008;12:197-210.
20. Mehta R, et al. Neuropharm. 2016;14:28-40.

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