

# Calm CP

Decreases cortisol levels and provides ingredients important for calm, sleep, and management of blood sugar\*

Item Number	Available Sizes	Serving Size
2099	60 Capsules	2 Capsules

# Key Ingredients

Lagerstroemia speciosa (Banaba) leaf extract (18% corosolic acid**)	<ul> <li>Corosolic acid selectively inhibits 11β-hydroxysteroid dehydrogenase 1 (11β-HSD1)<sup>1*</sup></li> <li>11β-HSD1 catalyzes the conversion of cortisone into cortisol<sup>2</sup></li> </ul>
Phosphatidyl- serine	<ul> <li>Component of cell membranes important for receptor-mediated interactions<sup>4*</sup></li> <li>Phosphatidylserine is thought to interact with cell membranes in order to dampen hypothalamic signaling and regulate the stress response<sup>5*</sup></li> </ul>
Glycine	<ul> <li>Major inhibitory neurotransmitter that crosses the blood-brain barrier<sup>6*</sup></li> <li>Binds receptors that regulate temperature during sleep<sup>7*</sup></li> </ul>
Taurine	<ul> <li>Neuroprotective amino acid that provides antioxidant protection<sup>8,9*</sup></li> <li>Demonstrates GABA-A agonist activity<sup>10*</sup></li> <li>GABA is the primary inhibitory neurotransmitter in the brain important for calm and sleep<sup>11-13</sup></li> </ul>

## The Science

In response to stress, the sympathetic nervous system (SNS) and hypothalamic-pituitary-adrenal (HPA) axis signal to the adrenals to release catecholamines (norepinephrine and epinephrine) and cortisol<sup>14</sup>

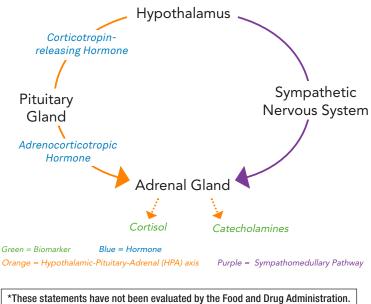
NeuroScience"

Calm CP Dietary Supplement

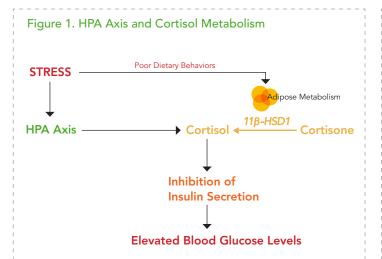
**60** Capsules

Prolonged stress is associated with dysregulation of the HPA axis, which can affect catecholamine and cortisol levels<sup>15</sup>

### NeuroAdrenal Response



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



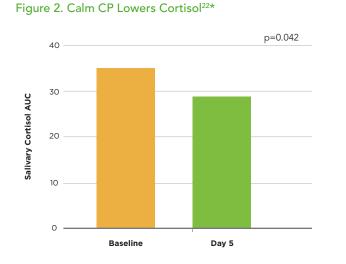
#### Stress, cortisol, and weight

Cortisol secretion follows a marked circadian pattern and increases in response to stress through activation of the HPA axis<sup>16</sup>

Adipocytes (fat cells) play a major role in the body's production of cortisol<sup>17</sup>

#### High stress has been linked to less healthy dietary behaviors and increased body weight<sup>18</sup>

- Cortisol inhibits the secretion and actions of insulin (glucose uptake, central appetite reduction)19
- Cortisol promotes the maturation of adipocytes (fat cells)<sup>20</sup>
- Upregulation of the enzyme 11β-HSD1 promotes fat accumulation by increasing cortisol levels<sup>20</sup>
- Elevated bedtime cortisol levels are associated with increased abdominal fat<sup>21</sup>



#### Proven benefits of Calm CP

A randomized study with corosolic acid was shown to significantly lower blood glucose levels<sup>3\*</sup>

- 10 subjects were prescreened and selected to receive corosolic acid once daily for 15 days<sup>3</sup>
- Blood glucose levels were 20-30% lower after two weeks<sup>3\*</sup>

#### The effectiveness of Calm CP was analyzed in a study

- Participants were prescreened for elevated cortisol levels
- Calm CP (2 capsules twice daily for 4 days) significantly lowered total daily cortisol levels (area under the curve - AUC) compared to baseline values (Figure 2)22\*
- Calm CP decreased mean daily cortisol levels by 17%<sup>22\*</sup>
- 71% of participants reported they would take Calm CP again





### **Concerned about memory?**

Learn more about ImmuWell at www.neuroscienceinc.com/products/immuwell

- Mohler H. Neuropharmacology. 2012;62(1):42-53. Saper C, et al. Nature. 2005;437(7063):1257-63. Lee D, et al. BMB Rep. 2015;48(4):209-16. 12
- 13. 14.
- 15
- 16. 17.
- Krizanova O, et al. Stress. 2016;19(4):419-28.
   Elder G, et al. Sleep Med Rev. 2016;19(4):419-28.
   Incollingo Rodriguez A, et al. Psychoneuroendocrinology. 2015;62:201-8.
   Moore C and Cunningham S. J Acad Nutr Diet. 2012;112(4):518-26. 18.
- 19
- Andrews R and Walker B. Clin Sci (London). 1999;6(5):513-23. Peckett A, et al. Metabolism. 2011;60(11):1500-10. Abraham S, et al. Obesity (Silver Spring). 2013;21(1):E105-17. 20 21.
- 22. Data on file, 2012, NeuroScience, Inc., Osceola, WI 54020

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