

## AdreCor with Licorice Root

Increases cortisol levels and provides non-glandular ingredients important for adrenal health, energy, wakefulness, and stress management\*

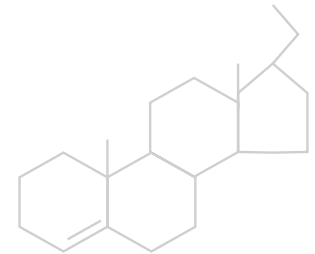


Item Number	Available Sizes	Serving Size
2097	90 Capsules	3 Capsules

### Key Ingredients

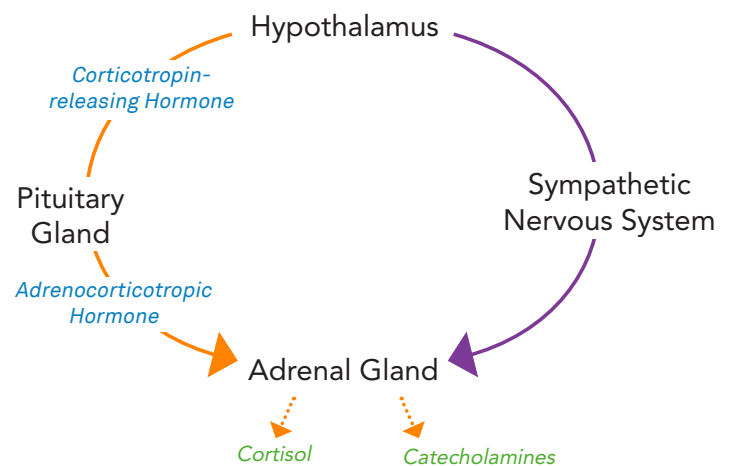
Glycyrrhizic acid (from Licorice root extract)	<ul style="list-style-type: none"> <li>Glycyrrhetic acid (metabolite of glycyrrhizic acid) binds 11<math>\beta</math>-hydroxysteroid dehydrogenase 2 (11<math>\beta</math>HSD2) to <b>inhibit the breakdown of cortisol</b><sup>1*</sup></li> </ul>
L-histidine	<ul style="list-style-type: none"> <li>Precursor to histamine</li> <li>In the central nervous system, histamine plays an important role in the release of pituitary hormones and <b>wakefulness</b><sup>2</sup></li> </ul>
L-methionine	<ul style="list-style-type: none"> <li>Precursor to S-adenosylmethionine (S-AMe)<sup>3</sup></li> <li>S-AMe is directly involved in <b>methylation</b> processes including catecholamine synthesis<sup>4</sup></li> </ul>
L-tyrosine	<ul style="list-style-type: none"> <li><b>Precursor to catecholamines</b> including dopamine, norepinephrine, and epinephrine</li> </ul>
Rhodiola rosea root extract (5% rosavins)	<ul style="list-style-type: none"> <li>Adaptogen that has been shown to <b>reduce stress-induced effects</b><sup>5,6*</sup></li> <li>In a randomized, double-blind, placebo-controlled study, <i>Rhodiola rosea</i> was shown to significantly improve mental fatigue and general well-being under stress<sup>6*</sup></li> </ul>
Green tea leaf extract ( <i>Camellia sinensis</i> ) (65% EGCG)	<ul style="list-style-type: none"> <li>Epigallocatechin gallate (EGCG) is a polyphenol in green tea that provides <b>antioxidant protection</b> by its ability to scavenge free radicals and metal ions<sup>7*</sup></li> <li>EGCG has been shown to <b>increase resistance to fatigue</b> in vivo<sup>8*</sup></li> </ul>
Vitamins B and C	<ul style="list-style-type: none"> <li><b>Active forms</b> of pantothenic acid, niacin, B6, folate, B12, and C are important for the synthesis of adrenal hormones and neurotransmitters<sup>9,14*</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>15</sup>
- Prolonged stress** is associated with dysregulation of the HPA axis, which can affect catecholamine and cortisol levels<sup>16</sup>

### NeuroAdrenal Response

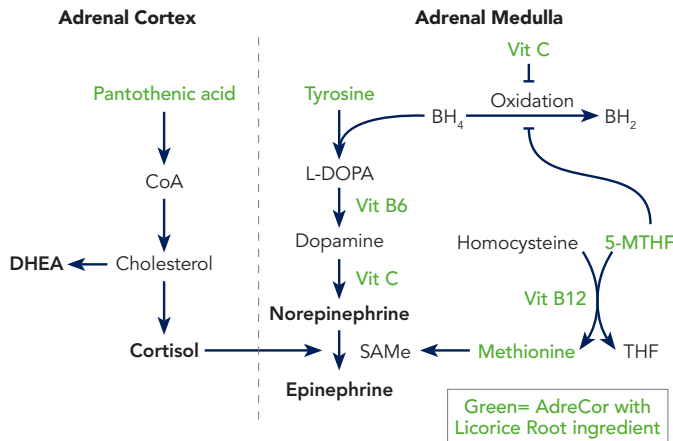


Green = Biomarker      Blue = Hormone  
 Orange = Hypothalamic-Pituitary-Adrenal (HPA) axis      Purple = Sympathomedullary Pathway

\*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 ADRECOR WITH LICORICE ROOT

Figure 1. Adrenal Hormones and Neurotransmitters



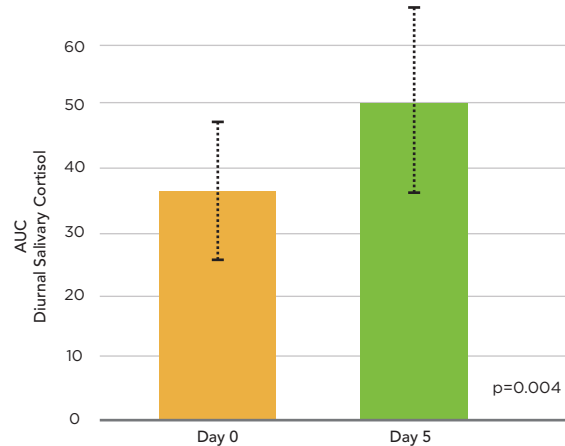
## AdreCor with Licorice Root and adrenal health

Contains amino acids and vitamins important for the synthesis of adrenal hormones and neurotransmitters\*

- 5-MTHF (from Quatrefolic®) and vitamin B12 are important for methylation processes including the synthesis of catecholamines<sup>13\*</sup>
- Niacin, vitamin C, and 5-MTHF help protect and regenerate tetrahydrobiopterin (BH<sub>4</sub>) from oxidation<sup>10-12\*</sup>
- Pantothenic acid is the precursor to coenzyme A (CoA), a coenzyme important for energy production and hormone synthesis<sup>9\*</sup>
- Cortisol induces the conversion of norepinephrine to epinephrine<sup>16</sup>

Catecholamines play an important role in mood, energy, memory, attention and cognition<sup>17-20</sup>

Figure 2. AdreCor with Licorice Root Increases Cortisol Levels<sup>21\*</sup>



## Cortisol, HPA axis, and fatigue

Cortisol awakening response (CAR) refers to the sharp increase in cortisol levels observed immediately following awakening<sup>22</sup>

- CAR function is thought to be important in regaining arousal after sleep and preparing the body for forthcoming bioenergetic demands<sup>22</sup>
- Cortisol curves lacking a robust CAR are indicative of HPA axis dysregulation and have been correlated with feelings of fatigue<sup>23,24</sup>

## AdreCor with Licorice Root increases cortisol levels<sup>21\*</sup>

- Participants (n = 19) were prescreened for low cortisol levels
- AdreCor with Licorice Root (3 capsules, twice daily) was taken for four consecutive days
- Mean total cortisol levels (area under the curve – AUC) were significantly higher on Day 5 compared to Day 0 (p = 0.004)<sup>21\*</sup>



## Concerned about mood?

Learn more about TravaCor at  
[www.neuroscienceinc.com/products/travacor](http://www.neuroscienceinc.com/products/travacor)

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If you have cardiovascular concerns or if you are pregnant or nursing, consult your healthcare provider before use.

‡ Magnafolate is a registered trademark of Lianyungang Jinkang Pharmaceutical Technology Co., Ltd.

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