



K02 ADAPTOCRINE®

Supports Healthy Adrenal Feedback Loop Function

BENEFITS OF PRODUCT

- Manages the impact of stress on the body
- Supports the body's ability to respond to stress

Adaptocrin[®] is a broad spectrum herbal adaptogen product used to support healthy adrenal feedback loop function. Adaptogens are plant compounds that seem to have a normalizing impact on the **Hypothalamus-Adrenal-Pituitary (HPA)** axis under times of stress. An "adaptogen" was defined in 1957 by the Russian pharmacologist I.I. Berkman as a substance that fulfills three criteria. First, it must be innocuous and cause minimal disorders in the physiological functions of the organism. Second, it must have a non-specific action to increase resistance to adverse influences by a wide range of physical, chemical, and biochemical factors. Third, it has a normalizing action irrespective of the direction of the pathologic state.¹ Adaptogens seem to be useful during both adrenal hyperstress as well as adrenal hypofatigue. By definition, an adaptogen implies the capability for bi-directional or normalizing effects. The most important adaptogens for the adrenals include Panax Ginseng, Siberian Ginseng (Eleutherococcus), Ashwagandha, Rhodiola, Boerhaavia Diffusa (Punarva), and Holy Basil Leaf Extract.

KEY INGREDIENTS RESEARCH COMMENTARY:

The research information presented here should not be construed as claims regarding performance of this product.

PANAX GINSENG is also known as Korean Ginseng and is probably one of the most recognized stress adaptogens. It appears that ginseng enhances fatty acid oxidation during prolonged exercise by sparing muscle glycogen.² The utilization of fatty acid metabolism over glycogen metabolism is an important role Panax Ginseng plays in adrenal stress syndrome. If metabolism is shifted into a state that can conserve glycogen levels by mobilizing fatty acids, tremendous stress is taken off the adrenals and blood sugar metabolism. Panax Ginseng apparently supports metabolism so that an adequate supply of oxygen is available for working muscles, which will make non-esterified fatty acids the preferential form of energy over glycogen. Panax Ginseng has the ability to improve stamina, energy, and physical performance. Apparently, the compounds in Panax Ginseng improve the hypothalamus-pituitary-adrenal (HPA) feedback loop as well as reduce the suppression caused by cortisone on the immune system.^{3 4 5 6}

SIBERIAN GINSENG, also known as Eleutherococcus senticosus, is an adaptogen. Most of the studies on Siberian Ginseng were conducted in the Soviet Union. These studies demonstrated enhanced athletic performance in animals as well as the ability to optimize HPA axis performance under stress.^{7 8 9} Studies have also demonstrated that Siberian Ginseng has the ability to enhance work output under stressful conditions and to improve mental and physical responses under stress.¹⁰

ASHWAGANDHA is also known as Withania somnifera and Indian Ginseng. It is a very popular herbal adaptogen in Ayurvedic medicine. Many animal studies have been published on this adaptogen. It apparently has adaptogen-like glucocorticoid activity, which makes it so helpful in adrenal stress syndromes.¹¹ Studies have found that Ashwagandha has similar adaptogenic activity to Panax Ginseng.¹² It also has the ability to counteract some of the adverse physical responses to stress, such as changes in blood sugar management.

Supplement Facts

Serving size 2 vegetarian capsules

Servings per container 45

	Amount Per 2 Capsules	% DV
Vitamin C (as ascorbic acid)	200 mg	333%
Panax Ginseng (root)	400 mg	*
Ashwagandha (root)	400 mg	*
Holy Basil extract (leaf)	200 mg	*
Rhodiola extract (root)	150 mg	*
Eleuthero (root)	100 mg	*
Pantethine	100 mg	*
Proprietary Blend:	157 mg	
Boerhavia (whole plant)		*
Betaine HCl		*
Cellulase (plant enzyme)		*
Peptidase (plant enzyme)		*

*Daily Value (DV) not established.

Other ingredients: Vegetarian capsule (HPMC), vegetable cellulose.

DIRECTIONS

Take 2-3 capsules, 3 times a day or as directed by your healthcare practitioner.

This product is not intended for use as a replacement for medications prescribed by a medical doctor. It is intended for nutritional purposes only. Statements in this flyer have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

Formula Info Page

DIETARY SUPPLEMENT

HOLY BASIL LEAF EXTRACT is an adaptogen that supports an increased sense of well being. Studies have shown that holy basil prevents increased plasma levels of cortisol-induced exposure to both chronic and acute stress. It also prevents antagonized histamine, supports normal blood sugar levels, modulates HPA activity, increases physical endurance, has immunomodulatory activities, and enhances gastric mucosal strength.^{13 14 15 16}

RHODIOLA is an adaptogenic plant that has demonstrated central nervous system enhancement, and anti-depressant, anti-carcinogenic, and cardioprotective properties. It has shown the ability to increase the swimming speed of animals by 135-159 percent. The compounds in Rhodiola have shown the ability to prevent the stress-induced catecholamine activity, reduce adrenaline-induced arrhythmias in animals, and prevent stress-induced increases in cAMP and decreased

cGMP in heart tissues of animals.^{17 18 19 20 21} Rhodiola has also been shown to enhance cognitive function and reduce mental fatigue, as well as support immune function.^{22 23}

BOERHAAVIA DIFFUSA (PUNARVA) has the ability to support both adrenal over- and under-activation. In stressful conditions, it has demonstrated the ability to buffer the elevations of serum cortisol and prevent the suppression of the immune system that takes place with elevated cortisol. On the other hand, Boerhaavia Diffusa has also demonstrated the ability to improve cortisol levels with end-stage adrenal exhaustion.²⁴

PANTETHINE is a major cofactor for adrenal hormone steroidogenesis and is a useful nutrient in stress conditions. Pantethine has demonstrated the ability to down-regulate the exaggerated secretion of cortisol under times of stress as well as the ability to support adrenal cortical function when needed.^{25 26 27 28}

OTHER PRODUCTS TO CONSIDER

Other products can be used in conjunction with **Adaptocrine® (K02)** to help support healthy adrenal function. **AdrenaCalm™ (K16)** may be used to support healthy cortisol levels. Elevated cortisol is usually accompanied by insulin resistance. For healthy response to insulin resistance, **Glysen® (K01)** can be used to optimize insulin receptor sensitivity. **OmegaCo3™ (K07)** is a broad spectrum fatty acid with cofactors to support insulin resistance. With adrenal exhaustion, **AdrenaStim™ (K15)** can be used to support normal cortisol levels. Those with adrenal exhaustion also require nutritional compounds to support healthy blood sugar balance such as **Proglyco-SP™ (K13)**. **Super EFA Complex™ (K08)** provides the spectrum of necessary fatty acids for blood sugar balance.

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