TECHNICAL DATA SHEET

MOUNTAIN PEAK NUTRITIONALS®
CONDITION SPECIFIC FORMULAS®

Adrenal B Complex™

Adrenal B Complex™ is designed to optimize both the nervous system function and the endocrine system by providing the full complex of B vitamins and essential nutritional factors for producing healthy nerve cells and reducing stress. We include adrenal specific botanicals that complement the stress reducing properties of B-complex vitamins for additional strengthening of the adrenal glands. B vitamins play a major role in the metabolism of protein and fat as well as converting carbohydrates into energy. Rhodiola rosea and Panax ginseng are premier adaptogens that promote physiological equilibrium and resistance to stress. They help moderate the production of adrenocortico-trophic hormone (ACTH) and corticosterone activity. We further focused on increasing adrenal function by adding ashwagandha and N-acetyl-l-tyrosine to help reduce and minimize the effects of stress and fatigue.

Supplement Facts

Serving size: 1 capsule

Servings per container: 90

Amount per serving		%DV
Vitamin C (as Poly C Ascorbate)	20 mg	62%
Vitamin B1 (as Thiamine HCl)	50 mg	3750%
Vitamin B2 (as Riboflavin 5' Phosphate)	10 mg	500%
Vitamin B3 (Niacin from Inositol Hexaniacinate)	53 mg	387%
Vitamin B3 (as Niacinamide)	30 mg	112%
Vitamin B5 (as D-Calcium Pantothenate)	200 mg	8000%
Vitamin B6 (as Pyridoxine HCl)	35 mg	1750%
Vitamin B6 (as Pyridoxal-5-Phosphate)	15 mg	800%
Vitamin B12 (as Methylcobalamin)	500 mcg	835%
Folinic Acid (as Calcium Folate)	500 mcg	200%
Biotin	400 mcg	133%
N-Acetyl l-Tyrosine	225 mg	*
Ashwagandha (Withania Somnifera) (root)	75 mg	*
Panax ginseng extract (80% ginsenosides) (aerial and root)	75 mg	*
Rhodiola rosea extract (4% rosavins, 1% salidrosides) (root)	50 mg	*
Inositol (from Inositol Hexaniacinate) (98%)	30 mg	*

Percent Daily Values are based on a 2,000 calorie diet.

* Daily Value not established.

Other ingredients: Vegetarian capsules, l-Leucine, silica

INGREDIENTS:

B1 (Thiamine HCl)
Thiamine is required for carbohydrate metabolism. Every cell of the body requires thiamine to form adnosine triphosphate (ATP), the nucleotide compound occurring in all cells where it represents energy storage (1).

B2 (Riboflavin 5' Phosphate)
Riboflavin is essential for tissue respiration, processing amino acids (proteins) and fats, activates vitamin B6 (pyridoxine) and Folic Acid, and helps convert carbohydrates into ATP. The biologically active form of B2 is riboflavin 5'phosphate.

B3 (Niacinamide/ Niacin (Inositol Hexaniacinate))
Vitamin B3 includes niacin (nicotinic acid) and niacinamide (nicotinamide). B3 is well absorbed and required for lipid metabolism, tissue respiration, and glycogenolysis. The niacin form of B3 helps regulate cholesterol levels (2). Inositol Hexaniacinate is the safe, well-tolerated, non-flushing form of niacin.

B5 (D-Calcium Pantothenate)
B5 is required for intermediary metabolism of carbohydrates, proteins, and lipids. Pantothenic acid is a precursor of coenzyme A, which is required in the acetylation reactions in gluconeogenesis, in the release of energy from carbohydrates, and in the synthesis and degradation of fatty acids (3).

B6 (Pyridoxal-5-Phosphate / Pyridoxine HCl)
B6 is required for amino acid metabolism. It is also involved in carbohydrate and lipid metabolism (2). In the body, with the necessary cofactors, pyridoxine is converted to the biologically active form of B6, pyridoxal-5-phosphate. Decreased pyridoxine concentrations are associated with increased plasma levels of C-reactive protein (CRP). CRP is an indicator of inflammation that is implicated in increased cardiovascular morbidity (4).

B12 (Methylcobalamin)

Vitamin B12 is a naturally occurring B-complex vitamin that is formed by microorganisms. Vitamin B12 is required for nucleoprotein and myelin synthesis, cell reproduction, normal nerve cell activity, DNA replication, and normal erythropoiesis. B12 is absorbed via an active transport system in the terminal ileum. This requires the glycoprotein, intrinsic factor, which is produced by the stomach.

Folinic Acid

Folinic acid, also known as 5-formyl tetrahydrofolate, is one active form in a group of vitamins known as folates. In contrast to folic acid, a synthetic form of folate, folinic acid is one of the tetrahydrofolate derivatives found naturally in foods. Folinic acid in the body can be easily converted to 5-methyltetrahydrofolate (5-MTHF), which is the only form of folate that can cross the blood-brain barrier. Folinic acid also promotes higher levels of glutathione and dopamine (5). Folate is necessary for the production and maintenance of new cells. Folate is required for the production of DNA and RNA, the building blocks of cells. Folinic acid is most effective when taken with Methyl B12 and Vitamin C.

Biotin

Biotin is a water-soluble B vitamin that acts as a coenzyme during the metabolism of protein, fats, and carbohydrates. Biotin-containing enzymes are involved in gluconeogenesis, fatty acid synthesis, propionate metabolism and the catabolism of leucine in mammals.

N-Acetyl l-Tyrosine

Tyrosine is a non-essential amino acid that the body synthesizes from phenylalanine. Studies indicate that the brain is not able to synthesize enough tyrosine from phenylalanine under stressful conditions (6). N-acetyl l-tyrosine is more rapidly absorbed and has better bioavailability than L-tyrosine. L-tyrosine is less stable, not as biologically active, and not as soluble in water, which further reduces bioavailability. Acetylation increases the stability and solubility of L-tyrosine to support brain function by improving the natural synthesis of the catecholamines dopamine and norepi-nephrine.

Ashwagandha

Ashwagandha (Withania somnifera) has long been recognized as an "adaptogen" that increases resistance to environmental stress. Ashwagandha contains several active constituents including alkaloids (isopelletierine, anaferine), steroidal lactones (withanolides, withaferins), and sponins (7). Some of the withanolides are structurally similar to ginsenosides from ginseng. (12). Research suggests Ashwagandha suppresses stress-induced increases of dopamine receptors in the corpus striatum of the brain (13).

Panax Ginseng (Chinese)

Orally, Panax ginseng is used as an adaptogen for increasing resistance to environmental stress and as a general tonic for improving well-being. Panax ginseng contains several active constituents. The constituents thought to be of most importance are triterpenoid saponins referred to collectively as ginsenosides (panaxosides). Numerous subtypes of ginsenosides have been identified. These ginsenosides have a wide range of pharmacological activity and effects. Production of adrenocorticotrophic hormone (ACTH) and ultimately corticosterone activity appears moderated by specific ginsenosides (8). Corticosterone promotes the conversion of amino acids into carbohydrates and glycogen by the liver and stimulates glycogen formation in the tissues, supporting optimal energy reserves.

Rhodiola Rosea

Rosavins are the active constituent in Rhodiola rosea and it also contains the phenylpropanoid glycoside called salidroside. Rosavins are thought to be responsible for rhodiola's stimulant, anti-stress, and adaptogenic actions (9). Rhodiola has a calming effect on the central nervous system and supports healthy thyroid, thymus, and adrenal gland function. Rhodiola helps moderate the effects of physical and emotional stress (10). Rosavins have demonstrated an adaptogenic quality in balancing adrenal gland function (11).

Patients: Consult with your healthcare professional for the proper dosage and use of this formula.
For more information about this and other Condition Specific Formulas® please visit our website at:

www.mpn8.com

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