METABOLIC SUPPORT

Helps Support Optimum Cellular Energy*

ALCOHOL-FREE CONCENTRATED EXTRACTS OF:

<table>
<thead>
<tr>
<th>FORMULA</th>
<th>MG PER 2 CAPSULES</th>
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<tbody>
<tr>
<td>Coleus root (Coleus forskohlii)</td>
<td>114 mg</td>
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<tr>
<td>Ch. Skullcap (Scutellaria baicalensis)</td>
<td>88 mg</td>
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<tr>
<td>Bupleurum root (Bupleurum chinense)</td>
<td>70 mg</td>
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<tr>
<td>Feverfew (Tanacetum parthenium)</td>
<td>60 mg</td>
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<tr>
<td>Jujube date seed (Zizyphus jujuba)</td>
<td>32 mg</td>
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<tr>
<td>Licorice root (Glycyrrhiza glabra &amp; G. uralensis)</td>
<td>20 mg</td>
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<tr>
<td>Ginger rhizome, Supercritical CO₂ Extract (Zingiber officinalis)</td>
<td>8 mg</td>
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HORMONES, CYCLIC AMP AND CELLULAR FUNCTION

Hormones are considered to be first messengers to cells, in that they bring a message to the cell that triggers a cascade of activity. This hormonal message activates adenylate cyclase, an enzyme, that is converted into a second messenger within the cell. There are several second messengers, but the most abundant one is the cyclic nucleotide adenosine monophosphate (cyclic AMP or cAMP). This pathway causes a cascade of activity in virtually every system of the body. Thus, cAMP’s influence is much broader than just endocrine function. The primary pharmacodynamic focus of this formula is to increase intra-cellular levels of cAMP. Cyclic AMP is involved in the regulatory function of every cell: so its role is found in thyroid, reproductive, and immune function, in lipolysis (breakdown and utilization of fats), muscle cell contraction and relaxation, cell secretion and permeability, just to name a few of its areas of impact. Obviously, maintaining appropriate levels of cAMP can have far reaching impact on maintaining general well-being. The breadth of use of this formula cannot be overstated.

Coleus Forskohlii is one of the world’s most researched plants. The majority of research has focused on forskolin, which is believed to be the plant’s most active constituent. It is known to activate the enzyme adenylate cyclase that forms cyclic AMP within cells. Forskolin is shown to exert a 6- to 400-fold increase in levels of cAMP. The plant is native to India, where a long history of use includes supporting cardiovascular, respiratory, kidney, and nervous system function. It is said to increase the memory of cells.

Bupleurum root has also been shown to increase cAMP. This plant is native to China where it is very popular as a ‘liver herb’. A fair amount of preliminary research on the group of constituents known as saikosaponins lends support to its role in maintaining liver health, as well as indicating a potential role in supporting immune function.

Feverfew herb is known to stimulate the formation of cyclic AMP. Additionally, it helps maintain a normal inflammatory response to stress, as indicated by a regulatory effect on prostaglandin, leukotriene, and thromboxane production. As its name suggests, Feverfew was traditionally used to maintain normal body processes, including temperature regulation.

In addition to cyclic AMP stimulating activity, Chinese Skullcap root possesses antioxidant activity. This is another plant native to China with a long history of use.

Jujube dates are reported to support liver, nervous system and respiratory health. Jujube adds an invigorating and nutritive aspect along with cAMP stimulation.

Licorice root is included in this formula as an excellent harmonizing component with soothing and antispasmodic properties. It is well known to support respiratory health and soothe the mucosal lining of the respiratory tract.

Ginger root is known in the Ayurvedic tradition as vishwabhesaj, meaning the universal medicine. It is known for its pronounced effect upon gastrointestinal function. Ginger is also known to increase cyclic AMP. The value that this botanical brings to this formula is simply too vast to sum up here.

Note: The intention of this information is to represent the traditional use of the individual botanicals found in these formulas and to inform the reader of any evolving scientific inquiry relevant to the formula’s ingredients.

SAFETY EVALUATION/CONTRAINDICATIONS

Do not use during pregnancy or lactation.

DRUG INTERACTIONS

Consult a physician if you are using any pharmaceutical drugs.

DOSAGE

Liquid Phyto-Caps: 2 capsules, twice daily

BEST TAKEN

Between meals, with warm water

DURATION OF USE

3-4 months

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LTT002
COMPLEMENTARY HERBS/FORMULAS
Turmeric/Catechu Supreme, Grindelia/Camelia Supreme, Daily Detox, and Hep Support

REFERENCES

GENERAL REFERENCES

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Gaia Herbs products: Always packaged in glass to protect potency, the environment, and you.