Forskolin Extract

DESCRIPTION

Coleus forskohlii is an important Ayurvedic and Hindu herb that has been used in traditional Indian medicine for centuries. Forskolin is the active ingredient derived from roots of the Coleus plant. The basic mechanism of Forskolin is the activation of the enzyme adenylyl cyclase, which increases cellular cAMP (cyclic adenosine monophosphate). Cyclic AMP, an important cellular-regulating compound, is normally formed when a stimulatory hormone, such as epinephrine, binds to receptors on the cell membrane. This triggers cellular activation of adenylyl cyclase which in turn increases cellular cAMP levels. Adenyl cyclase is incorporated in all cellular membranes and only the specificity of the receptor determines which hormone will activate it in a particular cell. Forskolin is able to bypass the need for direct stimulation of adenyl cyclase via transmembrane activation.

Increased cellular levels of cAMP are responsible for numerous physiological and biochemical effects, including:

- Inhibition of platelet activation and degranulation
- Inhibition of mast cell degranulation and histamine release
- Increased force of contraction of heart muscle
- Relaxation of arteries and other smooth muscles
- Increased insulin secretion
- Enhanced thyroid function
- Increased lipolysis

Recent studies have found that forskolin also inhibits a number of transport proteins and channel proteins through a mechanism that does not involve the production of cAMP. The result is a transmembrane signal that activates other cellular enzymes.

Asthma and Allergies

Current therapy for asthma and allergic conditions either increases cAMP levels with substances which increase adenyl cyclase (e.g., corticosteroids), or by inhibiting the enzyme phosphodiesterase, which breaks down cAMP (e.g., methylxanthines). Forskolin has been shown to relax constricted bronchial muscles in asthmatics.

Psoriasis

Psoriasis is caused by an imbalance between cAMP and another cell regulating-compound, cyclic guanine monophosphate (cGMP). A relative decrease in cAMP to cGMP levels results in a tremendous increase in cell division. In psoriasis, cells divide at a rate 1,000 times greater than normal. Forskolin has been shown to benefit psoriasis by normalizing the balance between cAMP and cGMP.

Cardiovascular Support

Forskolin has been shown to lower blood pressure and improve the contractility of the heart. These actions are directly related to increased cAMP levels which result in relaxation of the arteries and increased force of contraction. Forskolin has also been shown to be a direct cerebral vasodilator, indicating potential benefit in treating cerebral vascular insufficiency and post-stroke recovery.

Glaucoma

Forskolin has been shown to reduce intraocular pressure (IOP) when directly applied to the eyes. This effect indicates that forskolin may benefit glaucoma. Unlike current therapies, forskolin-increased intraocular blood flow has no side effects and does not induce miosis.

Weight-Control

Forskolin has been shown to stimulate lipolysis as well as inhibit the synthesis of fat in adipocytes. Forskolin has also been shown to counteract the age-related decrease in response of fat cells to lipolytic hormones like epinephrine.

Hypothyroidism

Forskolin has been shown to increase thyroid hormone production as well as stimulate thyroid hormone release.

Cancer

Forskolin has been shown to inhibit cancer metastasis in mice injected with malignant cells.

Immune System Enhancement

Forskolin has been shown to exhibit potent immune system enhancement by activating macrophages and lymphocytes.

RECOMMENDED DOSAGE

One to two capsules twice daily.

PRODUCT CODE  #5881  120 capsules (100 mg)

FORMULA

Supplement Facts

*Amount Per Serving

Forskolin (Coleus forskohlii) extract (root) (10% forskolin) 100 mg*

*Daily Value not established

REFERENCES