

FlavonAll®

Broad-Spectrum Multi-Flavonoid Supplement

DESCRIPTION

FlavonAll® is a dietary multi-flavonoid supplement designed to provide a broad spectrum amount of flavonoids in just two tablets daily. FlavonAll® delivers these flavonoids in the form of eight potent standardized extracts that are of -high quality. Flavonoids are beneficial for immune function, gene expression, circulatory and vascular health, cerebral blood flow, liver function, and cellular enzyme activity.†

FUNCTIONS

Flavonoids are a class of phytochemicals that are responsible for many of the brilliant colors of fruits and vegetables. They are perhaps the most beneficial phytochemicals found in food. Flavonoids carry out important metabolic and antioxidant functions in the body, scavenging many potentially damaging free radicals. Many flavonoids are also capable of binding to metal ions, which prevents these metals from acting as catalysts that enhance free radical production in the body. In addition, flavonoids support the health of the body's circulatory system by helping maintain proper vascular permeability, integrity, and resiliency. † Flavonoids also have a wide array of other biochemical functions. For example, flavonoids are involved in immune function, gene expression, capillary and cerebral blood flow, platelet aggregation, liver function, and collagen, phospholipid, and cholesterol metabolism. †

Pycnogenol® and Grape Seed Extract: Pine bark extract (Pycnogenol®) and grape seed extract are rich in proanthocyanidins, are highly regarded for their antioxidant properties and their role in supporting the body's connective tissues as well as capillaries.† FlavonAll® provides the original pine bark extract from the European coastal pine containing a minimum of 65% proanthocyanidins. A high-quality European grape seed extract (from *Vitis vinifera*) with a minimum of 90% proanthocyanidins is also included.

Red Grape Skin Extract: The skins of red and black grapes are rich in the dark red-violet flavonoids, the polyphenols that are also present in red wine. Studies show red grape skin may inhibit glycation through its beneficial antioxidant properties.† Advanced glycation end products (AGEs) are proteins or lipids that become glycated after exposure to sugars. The presence and accumulation of AGEs in many different cell types affect extracellular and intracellular structure and function. In high blood sugar environments and in natural aging, AGEs alter cell structure and normal vascular function. Crucial to maintaining healthy AGE formation is optimal antioxidant support. Grape seed extract may also have a beneficial effect on blood pressure.†

Bilberry Extract: Bilberries (*Vaccinium myrtillus*), a northern European cousin of the North American blueberries, are a rich source of anthocyanosides. Aside from its antioxidant activity, bilberry anthocyanosides were found to be important for eye health, capillary stability and blood flow.†.

Green Tea Extract: Green tea (*Camellia sinensis*) is one of the most widely consumed beverages in the world. Scientists have identified numerous phytochemicals including polyphenols, methylxanthines, flavonoids, and triterpenoid saponins in green tea. The polyphenols contained in tea, often referred to as catechins, appear to provide the primary health promoting benefits associated with green tea consumption.† Catechin, epi-catechin, epi-gallocatechin (EGC), and most notably EGC gallate act as antioxidants to support immune function and cardiovascular health.†

Ginkgo Biloba Extract: Known in traditional Chinese folklore for about 5,000 years, the leaves of the Ginkgo biloba tree provide flavonoids as flavone glycosides and terpene lactones, which are non-flavonoid phytochemicals. Numerous studies have evaluated the influence of ginkgo terpene lactones on capillary and cerebral microcirculation. † Ginkgo biloba extract is also reported to inhibit the tendency of red blood cells to stick together ("clumping"), thereby enhancing the fluidity of the blood. † Ginkgo biloba extract is respected for its potency and purity, and is derived only from young, fresh leaves that are especially rich in flavone glycosides and terpene lactones.

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Milk Thistle Extract: Milk thistle (*Silybum marianum*), a common herb native to the Mediterranean, has been widely used for its nutritional support of liver function for over 2,000 years. Seeds of the dried milk thistle flower are rich in silymarin, a bioflavonoid complex of three flavonolignins: silybin, silydianin, and silychristin. Silymarin is responsible for milk thistle's supportive and detoxification activities in the liver. †

Citrus Bioflavonoids: The pith of citrus peels is especially rich in the bitter tasting flavanones hesperidin and naringin. Citrus juices, however, are low in bioflavonoids. Like most flavonoids, those from citrus work in synergy with vitamin C, bind to metal ions, preventing these metals from catalyzing enhanced free radical production. †Many bioflavonoids support the health of the body's circulatory system by helping maintain healthy capillary blood flow and proper vascular permeability and integrity. †

INDICATIONS

FlavonAll® may be taken as a dietary supplement for individuals who wish to increase their intake of a broad spectrum of flavonoids.

FORMULA (#FVA)

Two tablets contain:

Pycnogenol®* French Maritime Pine Bark Extract**	
(min. 65% proanthocyanidins).....	10 mg
Grape Seed Extract** (min. 90% proanthocyanidins)	65 mg
Red Grape Skin Extract	
(min. 30% polyphenols).....	100 mg
Bilberry fruit Extract (min. 25% anthocyanins)	120 mg
Green Tea leaf Extract (decaffeinated, 20% polyphenols)..	900 mg
Ginkgo Biloba leaf Extract (min. 24% ginkgo	
flavone glycosides, min. 6% terpene lactones)	80 mg
Milk Thistle seed Extract (min. 80% silymarin).....	175 mg
Citrus Bioflavonoid Complex	
(<i>Citrus limon</i>) (min. 50% bioflavonoids)	250 mg

*Pycnogenol is a trademark of Horphag Research Ltd., U.K.

**Protected by U.S. patent #4,698,360 and other international patents.

SUGGESTED USE

Adults take 2 tablets daily or as directed by a healthcare professional.

SIDE EFFECTS

No adverse side effects have been reported.

STORAGE

Store in a cool, dry place, away from direct light. Keep out of reach of children.

REFERENCES

Jariyapamornkoon N, Yibchok-anun S, Adisakwattana S. *BMC Complementary and Alternative Medicine* [serial online]. July 12, 2013;13:171. [Red Grape Skin Extract].

Sri Harsha P, Mesias M, Lavelli V, Morales F. *Journal of the Science of Food and Agriculture* [serial online]. January 30, 2016;96(2):656-663. [Red Grape Skin Extract].

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Felice F, Zambito Y, Di Stefano R, et al. *European Journal Of Pharmaceutics And Biopharmaceutics: Official Journal Of Arbeitsgemeinschaft Für Pharmazeutische Verfahrenstechnik E.V* [serial online]. January 2012;80(1):176-184 [Red Grape Skin Extract].

Belcaro G, Ledda A, Hu S, Cesarone MR, Feragalli B, Dugall M. Evid Based Complement Alternat Med. 2013;2013:313142. doi: 10.1155/2013/313142. [Grape Seed Extract].

Marini A, Grether-Beck S, Krutmann J, et al. *Skin Pharmacology And Physiology* [serial online]. 2012;25(2):86-92. [Pycnogenol®].

Cesarone M, Belcaro G, Corsi M, et al. *August* 2006;57(4):431-436. [Pycnogenol®].

Kolehmainen M, Mykkänen O, Törrönen R, et al. *Molecular Nutrition & Food Research* [serial online]. October 2012;56(10):1501-1510. [Bilberry Extract].

Hae-Suk Kim a, MichaelJ.Quon c, Jeong-aKim. *Redox Biology* 2 (2014) 187- 195. [Green tea].

Brown A, Lane J, Hendrickx H, et al. *The British Journal Of Nutrition* [serial online]. March 2009;101(6):886-894. [Green tea].

Mashayekh A, Pham D, Yousem D, Dizon M, Barker P, Lin D. *Neuroradiology* [serial online]. March 2011;53(3):185-191. [Ginkgo biloba].

Shim S, Kim J, Choi C, Kim C, Park K. *Journal Of Medicinal Food* [serial online]. September 2012;15(9):818-823. [Ginkgo biloba and Bilberry Extract].

Gopalakrishnan R, Sundaram J, Sattu K, Pandi A, Thiruvengadam D. *May* 2013;377(1-2):163-176. [Milk Thistle].

Benavente-García O, Castillo J. *Journal of Agricultural and Food Chemistry* [serial online]. August 13, 2008;56(15):6185-6205. [Flavonoids].

For more information on FlavonAll® visit douglaslabs.com

† 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.

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Douglas Laboratories
112 Technology Drive
Pittsburgh, PA 15275
800-245-4440
douglaslabs.com



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