Bergamot Extract BPF

Clinical Applications

- Supports Cardiovascular Health*
- Helps Maintain Healthy Cholesterol Levels Already Within Normal Range*
- Supports Healthy Blood Glucose Metabolism*

Bergamot Extract BPF *features a highly concentrated source of polyphenolic antioxidants derived from bergamot (Citrus bergamia), a flavonoid-rich fruit originating from the Calabria region in southern Italy and traditionally used to support cardiovascular wellness. Research has suggested that bergamot juice extract is utilized hepatically to help maintain healthy cholesterol levels already within normal range and to support healthy blood glucose metabolism.**

All ADAPTOGEN RESEARCH Formulas Meet or Exceed cGMP Quality Standards

Discussion

Bergamot is a type of citrus fruit primarily grown in the southern Italian region known as Calabria. It has been used traditionally to benefit a wide variety of human health functions, particularly cardiovascular health. Essential oil of the bergamot peel is used widely in the food and cosmetic industries, whereas the juice flavonoids have been suggested to be the components responsible for benefitting cardiovascular health.*

Bergamot Extract BPF features Bergamot Polyphenolic Fraction Gold® (BPFG®), a concentrated bergamot juice extract containing a unique combination of naturally occurring polyphenolic components that exhibit antioxidant activity. These protective flavonoids include neoeriocitrin, naringin, neohesperidin, melitidin, and brutieridin, each of which influences a slightly different and distinctive molecular pathway.*

The following focuses on the mechanisms proposed to be responsible for the beneficial cardioprotective effects of bergamot, which include the maintenance of healthy lipid and blood glucose levels and the support of normal resistance to oxidative stress.*[1,2]

Mechanism of Action

Reviews of the mechanism of action and influence of bergamot juice extract on lipid and sugar metabolism at the molecular level suggest that naringin and neohesperidin initiate the release of adenosine monophosphate-activated protein kinase (AMPK), a central regulator of glucose and fatty acid metabolism. Neoeriocitrin is proposed to inhibit phosphodiesterases (PDEs), which are involved in the regulation of energy metabolism and lipolysis through the cyclic adenosine monophosphate (cAMP) molecular pathway. It is submitted that brutieridin and melitidin act as direct hydroxymethylglutaryl coenzyme A (HMG-CoA) reductase inhibitors involved in deterring cholesterol synthesis in the liver. Bergamot flavonoids have also been found to inhibit quinone oxidoreductase 2 (QR2), an enzyme implicated in catalyzing oxidation-reduction reactions involving xenobiotic (foreign) and biogenic (produced in the body) substrates. Preliminary data suggests that QR2 enzyme activity contributes to the effects observed in lipid and glucose metabolism. Although the individual polyphenolic compounds in bergamot juice extract do appear to exert specific effects, the authors propose that the synergistic effects from collectively influencing multiple molecular pathways are what ultimately benefit cardiovascular health.*[1,3]

Cardiovascular and Blood Sugar Support

Numerous clinical trials have suggested that bergamot juice extract functions via metabolic pathways in the liver to maintain healthy cholesterol levels and to support healthy blood glucose metabolism.[4,5] There is a limited amount of data assessing the use of supplemental bergamot juice extract in generally healthy subjects; however, there are studies in athletes. A randomized, double-blind, placebo-controlled study evaluated the effect of BPFG on cardiovascular parameters and exercise performance in male cyclists (n = 30) utilizing 650 mg of BPFG twice per day for four weeks. Significant differences were observed between pre-and post-intervention baseline endothelial NO (nitric oxide) levels, suggesting that BPFG plays a role in cardiovascular adaptive mechanisms by way of a vasoprotective response.*[6]

Follow-up trials with healthy populations are needed to solidify the traditional use of bergamot extract for cardiovascular wellness and to further validate the role of bergamot supplements in the clinical setting.*

***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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Supplement Facts

Serving Size: 2 Tablets
Servings Per Container: 30

	Amount Per Serving	%DV
Bergamot Extract (*Citrus bergamia*)(fruit juice)(47% total polyphenols [neoeriocitrin, naringin, neohesperidin, melitidin, and brutieridin])[S1]	1.3 g	**

** Daily Value (DV) not established.

Other Ingredients: Croscarmellose sodium, microcrystalline cellulose, ascorbyl palmitate, silica, and coating (tapioca maltodextrin, sunflower lecithin, palm oil, and guar gum).

S1. Bergamot Polyphenolic Fraction Gold (BPFG®) is a registered trademark of H&AD S.R.L.

Directions

Take one to two tablets daily, or as directed by your healthcare practitioner.

Consult your healthcare practitioner prior to use. Individuals taking medication should discuss potential interactions with their healthcare practitioner. Do not use if tamper seal is damaged.

Formulated To Exclude

Wheat, gluten, corn, yeast, soy, animal or dairy products, fish, shellfish, peanuts, tree nuts, egg, ingredients derived from genetically modified organisms (GMOs), artificial colors, artificial sweeteners, and artificial preservatives.

References

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4. Mannucci C, Navarra M, Calapai F, et al. *Phytother Res*. 2017 Jan;31(1):27-39. doi:10.1002/ptr.5734.
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