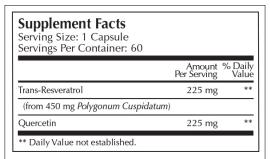
## Resveratrol Select™



## RESEARCHED ANTIOXIDANT • OPTIMIZED WITH QUERCETIN



**Other ingredients:** Hypromellose (capsule), microcrystalline cellulose, vegetable stearate, silicon dioxide. **Does not contain gluten.** 

**SUGGESTED USE:** 1 CAPSULE PER DAY OR AS DIRECTED BY YOUR HEALTHCARE PROFESSIONAL.

WARNING: IF YOU ARE TAKING MEDICATION, HAVE A MEDICAL CONDITION OR AN UPCOMING MEDICAL PROCEDURE, OR ARE PREGNANT OR NURSING, CONSULT A PHYSICIAN BEFORE USING. IF ADVERSE REACTIONS OCCUR, DISCONTINUE USE AND CONSULT YOUR HEALTHCARE PRACTITIONER.

- Synergistic blend of trans-resveratrol & quercetin.\*
- Antioxidant & inflammation-modulating benefits.\*
- Helps support healthy cardiovascular and immune system function, glucose metabolism & cellular detoxification.\*

Resveratrol Select<sup>™</sup> helps support cellular health and defense with potent amounts of two plant-based antioxidants: trans-resveratrol and quercetin. Resveratrol has been studied for its ability to quench free radicals, boost the rate of cellular repair and support cardiovascular health. New research suggests the combination of resveratrol and quercetin may help to provide greater benefits to certain health parameters than either compound alone.

RESVERATROL is a non-flavonoid polyphenol that possesses numerous biological activities. It is found naturally in grape skins, red wine, grape juice, peanuts, cocoa and berries belonging to the *Vaccinium* family (e.g. blueberries and cranberries), as well as various other plants, notably *Polygonum cuspidatum* (Japanese knotweed), an ornamental species. **Resveratrol Select**™ contains a 50% trans-resveratrol extract sourced from the root of this plant.

Resveratrol was first identified as a possible cardioprotective agent in the early 1980s. It gained widespread acclaim a decade later when its presence in red wine was proposed to explain the "French Paradox", i.e. the reason why French people eating diets high in saturated fat (butter, cheese, cream sauce, foie gras, etc) experienced such low cardiovascular disease rates. Saturated fat is no longer considered the number one cause of heart disease, but the health benefits of resveratrol have continued to be researched and recognized. Cardioprotective, neuroprotective, anti-aging and anti-obesity effects all have been observed, along with potent antioxidant, anti-inflammatory and anti-viral activity.

Animal research indicates that resveratrol may provide anti-aging benefits. In a landmark 2003 study, resveratrol was found to activate sirtuin deacetylase enzymes, increase DNA stability and mimic the effects of caloric restriction, resulting in a seventy percent increase in the lifespans of *Saccharomyces cerevisiae* yeast. In subsequent research, administration of resveratrol was shown to extend the lifespans of worms, fruit flies, fish, and mice fed a high-calorie diet. It is not known to what degree, if any, resveratrol might produce a similar effect in humans although resveratrol is well known to induce autophagy, the intracellular detoxification mechanism associated with longevity and increasingly recognized to be a potentially promising target for helping to modulate animal lifespan.

(continued on reverse side)

<sup>\*</sup> 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.







A majority of research on resveratrol has been conducted in pre-clinical or in vitro settings. Such studies suggest resveratrol may effectively scavenge free radicals and inhibit the oxidation of LDL cholesterol. Recent in vitro research indicates that resveratrol also may be able to inhibit the life cycle of viruses such as the Epstein-Barr virus (EBV) and to help protect the lymphatic system by preventing EBV transformation in human B cells.

In mice with alcoholic fatty livers, resveratrol was shown to protect hepatic tissue from excessive lipid accumulation and to attenuate hepatic steatosis by inducing autophagy, a cellular detoxification process involving the regulation of lipid droplets. In obese or otherwise metabolically abnormal animals, resveratrol has been shown to improve lipid profiles, insulin sensitivity and glucose tolerance, while in humans with impaired insulin metabolism, short-term supplementation with resveratrol has been found to help balance glucose and lipid levels. Resveratrol also has been shown in multiple animal and in vitro studies to help modulate the progression of a number of autoimmune diseases, including those affecting glucose metabolism, joint comfort and function, skin health and gastrointestinal health.

QUERCETIN, another bioactive plant polyphenol with antioxidant and inflammation modulating effects, may work synergistically with resveratrol for added benefits. Research published in 2016 found the combination surpassed either molecule alone in reducing adipose tissue weights in rats fed an obesogenic diet. A 2017 study suggested the combination helped reverse weight gain in rats fed a similar diet by influencing gut microbiome composition, notably rebalancing the Firmicutes/Bacteroidetes ratio associated with diet-induced obesity. Quercetin also has been shown to enhance the effects of resveratrol on markers of aging in cultured human cells under hyperglycemic conditions. Resveratrol Select™ contains quercetin derived from the flower buds of Sophora japonica, the Japanese pagoda tree.

Because resveratrol has been shown to inhibit blood clotting, taking Resveratrol Select™ may be contraindicated prior to undergoing surgery, in patients with bleeding disorders and in those taking blood thinning medications.

## **REFERENCES**

- Vidavalur R, et al. Significance of wine and resveratrol in cardiovascular disease: French paradox revisited. Exp Clin Cardiol. 2006;11:217-225.
- 2. Howitz KT, et al. Small molecule activators of sirtuins extend Saccharomyces cerevisiae lifespan. Nature. 2003 Sep 11;425(6954):191-6.
- 3. Nakamura S, Yoshimori T. Autophagy and Longevity. *Mol Cells*. 2018 Jan 31;41(1):65-72.
- 4. Tang L, et al. Resveratrol Ameliorates Alcoholic Fatty Liver by Inducing Autophagy. Am J Chin Med. 2016;44(6):1207-1220.
- 5. Yiu CY, et al. Inhibitory effects of resveratrol on the Epstein-Barr virus lytic cycle. *Molecules*. 2010 Oct 14;15(10):7115-24.
- 6. Espinoza JL, et al. Resveratrol prevents EBV transformation and inhibits the outgrowth of EBV-immortalized human B cells. PLoS One. 2012;7(12):e51306.
- 7. Zhao L, et al. A combination of quercetin and resveratrol reduces obesity in high-fat diet-fed rats by modulation of gut microbiota. Food Funct. 2017 Dec 13;8(12):4644-4656.
- 8. Arias N, et al. The combination of resveratrol and quercetin enhances the individual effects of these molecules on triacylglycerol metabolism in white adipose tissue. Eur J Nutr. 2016 Feb;55(1):341-8.
- 9. Abharzanjani F, et al. Short-term High Dose of Quercetin and Resveratrol Alters Aging Markers in Human Kidney Cells. Int J Prev Med. 2017 Aug 31;8:64.

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