ADVANCED ORTHOMOLECULAR RESEARCH

AOR CODE: AOR04142
Premium

Acta-RESVERATROL

$47.45 CAD

A healthy heart and a long life

- A potent antioxidant responsible for the health benefits of red wine
- Helps maintain a healthy heart Promotes normal cell development
- Mimics the longevity effects of calorie restriction

Gluten Free Vegan Non-GMO Heart Health

AOR Code	Variant	Price
AOR04142	90 VEGI-CAPS	$47.45

Details
Resveratrol, found in red wine, is a powerful anti-aging antioxidant with benefits for cardiovascular health, immunity, and inflammation. It is a plant compound known as a polyphenol, and naturally occurs in grapes, various berries, and herbs. Acta-Resveratrol offers this powerful anti-aging nutrient along with vitamin C, quercetin, and rosemary extract, which support its antioxidant actions and enhance its health benefits.

Studies have shown that it reduces cholesterol and triglycerides, lowers blood pressure, and lowers the incidence of arterial plaque formation. Resveratrol has been shown to work as an anti-cancer agent, blocking events that occur during cancer initiation, promotion and progression. The most unique application of resveratrol is that it mimics the effects of eating a calorie-restricted diet, which has many different health benefits. Calorie restriction involves an approximate 40% reduction in caloric intake while maintaining levels of nutrients, and has been shown to increase the lifespan of a number of different species. Resveratrol provides many of the beneficial effects of caloric restriction, making it a powerful addition to any anti-aging protocol.

Label Info

Discussion

Resveratrol is a polyphenolic compound found in various berries (cranberry, blueberry, grapes) and

herbs. Acta-Resveratrol provides antioxidants and other factors for the maintenance of good health.

Product Variation

Product Code	Size
AOR04142	90 VEGI-CAPS

Supplements Facts

Serving Size: 1 Capsule	Amount	% Daily
trans-Resveratrol	40 mg	
Vitamin C (ascorbic acid)	40 mg	
Quercetin	53 mg	
Rosemary extract	10 mg	

Black pepper oleoresin, Calcium disodium EDTA, dihydrate, Gum Arabic, Microcrystalline cellulose , Maltodextrin, Silica, Sodium stearyl fumarate. Capsule: hypromellose,titanium dioxide.

Guarantees

AOR™ guarantees that all ingredients have been declared on the label. Contains no wheat, gluten, nuts, peanuts, sesame seeds, sulphites, mustard, soy, dairy, eggs, fish, shellfish or any animal byproduct.

Adult Dosage

Take 1 capsule daily with food or as directed by a qualified health care practitioner.

Cautions

Do not use if pregnant or breastfeeding. Consult a health care practitioner for use beyond 6 weeks, or if you are taking phenytoin. Some people may experience headaches.

Source

Japanese Knotweed

Main Application

Antioxidant

Cardiovascular health

Cellular metabolism

Anti-Aging

Disclaimer

The information and product descriptions appearing on this website are for information purposes only, and are not intended to provide or replace medical advice to individuals from a qualified health care professional. Consult with your physician if you have any health concerns, and before initiating any new diet, exercise, supplement, or other lifestyle changes.

Research

Background

Resveratrol is a naturally occurring polyphenolic compound found in various berries (cranberry, blueberry, grapes), peanuts, rhubarb and a number of oriental herbs including the Japanese Giant Knotweed (Polygunum cuspidatum).

There is no doubt that many among us, in the context of dinner-party banter or some other setting conducive to the transfer of anecdotal wisdom, have heard that a glass of wine a day is good for your health. ‘A healthy heart and a long life’ is usually the jist of this particular nugget of scientifically secular populist enlightenment. The long life that is inferred is attributable to a substance that the scientifically observant elite have identified as resveratrol, a phytonutrient originating -in this case – in the vinyards. Resveratrol, in turn, elicits this wondrous effect largely by mimicking many of the biological chain of events seen in the practice of Calorie Restriction Optimum Nutrition (CRON), or simply Caloric Restriction (CR).

Caloric Restriction (CR) is the only proven method of increasing life span in numerous and diverse species, from yeast, worms, fruit flies, spiders, rodents, all the way up to primates. Calorie restriction refers to an approximately 40% reduction in caloric intake, usually accompanied by a maintenance level of nutrients. The institutions that have conducted this research include Cornell and Harvard University, as well as the prestigious Massachusetts Institute of Technology (MIT) – testimony to the credibility behind Caloric Restriction. This research has branched out to encompass the study of ‘caloric restriction mimetics’. These are compounds that enable organisms to parallel many of the beneficial biological effects of a caloric restriction diet, and among the most prominent of these is a substance known as resveratrol.

We are reminded of the ‘one glass of wine a day for longer life’ anecdote. In order to obtain the substance identified as responsible for this effect in amounts that are commensurate with even the most conservative trials, one needs to consume approximately 1,000 glasses of red wine each day! A noble goal for some, but perhaps one capsule containing enough resveratrol to equal that found in approximately 100 glasses of red wine might be a more practical start.

Research

Cardiovascular Health and Inflammation

Studies with resveratrol have reported a diverse range of physiological and biochemical effects, particularly in the areas of heart health, immunity and inflammation. Other beneficial cardiovascular effects include the reduction of cholesterol and triglycerides, among others. Resveratrol exerts anti-oxidant effects by quenching free radicals (including reactive oxygen species) that act as cellular terrorists, reducing the oxidation of LDL particles, which many believe to be the initiating event in

heart disease. Resveratrol has been shown to down-regulate the production of chemicals (cytokines) involved in the cause, signaling and amplification of inflammation.

Toxin Metabolism Enzymes

In addition, the modulation of the activity of the two groups of enzymes – Phase 1 and Phase 2 – also plays an important role in the detoxification and antioxidant effects of resveratrol. The Phase 1 family of enzymes can make certain compounds more toxic and resveratrol has an inhibiting effect on them, thereby reducing toxin formation. Alternatively, stimulation of the Phase 2 class of enzymes help facilitate the removal of toxins from the body by making these compounds even more soluble and easier for excretion.

Caloric Restriction and Resveratrol

The plants that produce resveratrol do so as a response to stressors such as fungal infection or ultra violet exposure. Resveratrol has been shown to enhance life extension much like caloric restriction in yeast (70%), worms (18%), fruit flies (30%), and fish (60%). The mechanism may be similar to sirtuin activation. There is considerable excitement regarding the use of resveratrol as a CR Mimetic. A recent study published in the prestigious journal Nature jointly by Harvard University and the National Institute of Aging demonstrated that resveratrol in high doses offset the effects of an unhealthy high-calorie diet in mice. Resveratrol is a molecule that occurs in nature in two forms or as mirror-images, namely the trans and cis forms. It is the trans version of the resveratrol that is the active form that has been used in all the investigations. The cis form may be at best inactive or at worst inhibit the activity of its mirror image – the trans form. There are high quality, naturally extracted sources that yield 98% plus trans activity.

Market Trends

In recent times people have become more interested in the health benefits that components in red wine can offer when consumed on a regular basis and in a reasonable amount. Resveratrol is one of the more recent fountain of youth discoveries.

AOR Advantage

This formula contains several antioxidants that increase the overall effectiveness of it; antioxidants function better in the body in combination rather than when they are in isolation. Each capsule of AOR's Acta-Resveratrol contains enough resveratrol to equal that found in approximately 180 glasses of red wine and without the negative side effects of alcohol.

References

Elmali N, Baysal O, Harma A, Esenkaya I, Mizrak B. Effects of resveratrol in inflammatory arthritis. Inflammation. 2007 Apr;30(1-2):1-6.

Golkar L, Ding XZ, Ujiki MB, Salabat MR, Kelly DL, Scholtens D, Fought AJ, Bentrem DJ, Talamonti MS, Bell RH, Adrian TE. Resveratrol inhibits pancreatic cancer cell proliferation through transcriptional induction of macrophage inhibitory cytokine-1. J Surg Res. 2007 Apr;138(2):163-9.

Shankar S, Singh G, Srivastava RK. Chemoprevention by resveratrol: molecular mechanisms and therapeutic potential. Front Biosci. 2007 Sep 1;12:4839-54.

Abstract

The effects of 30 days resveratrol supplementation on adipose tissue morphology and gene expression patterns in obese men.

Int J Obes (Lond). 2013 Aug 20.

Konings E, Timmers S, Boekschoten MV, Goossens GH, Jocken JW, Afman LA, Müller M, Schrauwen P, Mariman EC, Blaak EE.

Polyphenolic compounds, such as resveratrol, have recently received widespread interest because of their ability to mimic effects of calorie restriction. The objective of the present study was to gain more insight into the effects of 30 days resveratrol supplementation on adipose tissue morphology and underlying processes. Eleven healthy obese men were supplemented with placebo and resveratrol for 30 days (150?mg per day), separated by a 4-week washout period in a double-blind randomized crossover design. A postprandial abdominal subcutaneous adipose tissue biopsy was collected to assess adipose tissue morphology and gene expression using microarray analysis. Resveratrol significantly decreased adipocyte size, with a shift toward a reduction in the proportion of large and very-large adipocytes and an increase in small adipocytes. Microarray analysis revealed downregulation of Wnt and Notch signaling pathways and upregulation of pathways involved in cell cycle regulation after resveratrol supplementation, suggesting enhanced adipogenesis. Furthermore, lysosomal/phagosomal pathway and transcription factor EB were upregulated reflecting an alternative pathway of lipid breakdown by autophagy. Further research is necessary to investigate whether resveratrol improves adipose tissue function.

Effects of resveratrol in inflammatory arthritis.

Inflammation. 2007 Apr;30(1-2):1-6.

Elmali N, Baysal O, Harma A, Esenkaya I, Mizrak B.

Nuclear factor kappa B (NF-kappaB), is a pivotal transcription factor involved in the activation of the TNF-alpha and IL-1beta genes. Activation of NF-kappaB in synovial cells is a feature seen in arthritis patients. Resveratrol, a polyphenolic, natural phytoalexin found with particularly high levels in grape skin and red wine is potent and specific inhibitor of TNF-alpha and IL-1beta induced NF-kappaB activation. We aimed to determine the in vivo effects of intra-articular injections of resveratrol on cartilage and synovium in an experimental rabbit inflammatory arthritis model.

MATERIALS AND METHODS: Arthritis was induced by intra-articular injection of three times of 50 mug lipopolysaccharide (LPS) at day 0, 4 and 8 at 4-day intervals into the knee joints of rabbits. To the test group, 10 muMol/kg resveratrol in the DMSO was injected in the knees at day 0 and then it was continued once daily for 2 weeks. To the control group the same time and amount of DMSO was injected the knees of rabbits. All rabbits were killed 1 week after the last injection and cartilage tissue and synovium were evaluated with semiquantitative scoring histologically.

RESULTS: According to control group in the resveratrol group, significantly decreased cartilage destruction was determined by H&E staining ($p = 0.04$). Loss of matrix proteoglycan content in the cartilage was much lower, as determined by safranin O staining ($p = 0.03$). We also observed marked synovial inflammation after intra-articular injection to control knees, but not in the resveratrol treated group knees ($p = 0.01$).

CONCLUSION: This study suggests that intra-articular injection of resveratrol may protect cartilage against the development of experimentally induced IA.

Pilot study of resveratrol in older adults with impaired glucose tolerance.

Crandall JP, Oram V, Trandafirescu G, Reid M, Kishore P, Hawkins M, Cohen HW, Barzilai N.

J Gerontol A Biol Sci Med Sci. 2012 Dec;67(12):1307-12.

BACKGROUND: |Resveratrol, a plant-derived polyphenol, has shown promising effects on insulin sensitivity and glucose tolerance in animal models and is also reported to have cardioprotective properties, but human studies are limited. In a pilot study, we tested the hypothesis that resveratrol improves glucose metabolism and vascular function in older adults with impaired glucose tolerance (IGT).

METHODS: | Ten subjects aged 72 ± 3 years (M ± SD) with IGT were enrolled in a 4-week open-label study of resveratrol (daily dose 1, 1.5, or 2 g). Following a standard mixed meal (110 g carbohydrate, 20 g protein, 20 g fat), we measured 3-hour glucose and insulin area under the curve (AUC), insulin sensitivity (Matsuda index), and secretion (corrected insulin response at 30 minutes). Endothelial function was assessed by reactive hyperemia peripheral arterial tonometry (reactive hyperemia index) before and 90 minutes postmeal. Results did not differ by dose, so data were combined for analysis.

RESULTS: At baseline, body mass index was 29 ± 5 kg/m(2), fasting plasma glucose 110 ± 13 mg/dL, and 2-hour glucose 183 ± 33 mg/dL. After 4 weeks of resveratrol, fasting plasma glucose was unchanged, but peak postmeal (185 ± 10 vs 166 ± 9 mg/dL, $p = .003$) and 3-hour glucose AUC (469 ± 23 vs 428 ± 19, $p = .001$) declined. Matsuda index improved (3.1 ± 0.5 vs 3.8 ± 0.5, $p = .03$), and

corrected insulin response at 30 minutes was unchanged (0.6 ± 0.1 vs 0.5 ± 0.5, p = .49). There was a trend toward improved postmeal reactive hyperemia index (baseline vs resveratrol postmeal delta -0.4 ± 0.2 vs 0.2 ± 0.3, p = .06). Weight, blood pressure, and lipids were unchanged.

CONCLUSIONS: At doses between 1 and 2 g/day, resveratrol improves insulin sensitivity and postmeal plasma glucose in subjects with IGT. These preliminary findings support the conduct of larger studies to further investigate the effects of resveratrol on metabolism and vascular function.