



Super ORAC

Stock #808-3 (90 capsules)

Super ORAC is a powerful antioxidant formula that provides a rich blend of antioxidants and other health-promoting nutrients known to protect the body's tissues against oxidative stress and illness caused by free radicals—highly reactive molecules that can destroy cellular compounds, including DNA. Free radical damage to cells has been linked to the development of cancer and other debilitating diseases, including atherosclerosis, Alzheimer's disease, cataracts, osteoarthritis, and immune deficiency. Research shows that antioxidant nutrients can help prevent illness and treat degenerative disorders associated with free radical damage. The unique combination of antioxidant ingredients in Super ORAC, which includes extracts of green tea, mangosteen, turmeric, apple and açai berry, along with quercetin, resveratrol and selenium, provides a high ORAC value. Oxygen radical absorbance capacity (ORAC) is a standard measurement of antioxidant activity used in the nutraceutical, pharmaceutical and food industries. Each capsule of Super ORAC contains.¹⁻⁵

Green tea (*Camellia sinensis*) is a rich source of antioxidant nutrients, including polyphenols (catechins and gallic acid), carotenoids, tocopherols, ascorbic acid (vitamin C), and selenium. ORAC assays have shown that green tea exhibits much higher antioxidant activity against peroxyl radicals than many vegetables. Numerous human studies have demonstrated a significant increase in plasma antioxidant capacity following consumption of moderate amounts of green tea, leading to reduced oxidative damage in macromolecules such as DNA and lipids (fats). Research has also shown that green tea extract functions better against oxidative damage of human red blood cells compared to both black and white tea extracts. The majority of human epidemiological and intervention studies demonstrates beneficial effects of green tea or green tea extracts rich in EGCG (epigallocatechin-3-gallate, the major antioxidant polyphenol in green tea) on weight management, glucose control and cardiovascular risk factors. In addition, a number of studies have shown a significant protective role of green tea against various liver diseases, including cirrhosis, fatty liver disease and liver cancer. Furthermore, the anti-carcinogenic properties of the antioxidants in green tea are supported by numerous epidemiological studies. Over half of the studies reviewed suggest that long-term consumption of green tea may lower the risk of certain types of cancer, especially gastrointestinal cancers such as colorectal, esophageal, liver, pancreatic and stomach cancer. There is also some epidemiological evidence demonstrating protective effects of green tea consumption on breast, lung and prostate cancer.⁶⁻¹²

Mangosteen (*Garcinia mangostana*) - In recent years, scientists have discovered that mangosteen contains a class of naturally occurring polyphenolic compounds known as xanthenes, which demonstrate potent antioxidant, anti-inflammatory, antithrombotic, antitumoral, neuroprotective (protecting against nerve damage), and antibacterial effects. Xanthenes and xanthone derivatives have been shown to provide beneficial effects on cardiovascular diseases and to demonstrate anticancer activity. For example, recent research has confirmed that xanthone constituents exhibit dose-dependent aromatase inhibitory activity—inhibiting the aromatase enzyme decreases estrogen production in the body and has proven to have a significant effect on the development and progression of hormone-responsive breast cancer. In addition, mangosteen also contains oligomeric proanthocyanidins, which are potent peroxyl radical scavengers that demonstrate much higher antioxidant activity than either pine bark or grape seed extracts.¹³⁻²⁰

Turmeric contains antioxidants known as curcuminoids, which demonstrate potent antioxidant, anti-inflammatory and antitumor properties. Curcumin, the primary active curcuminoid, exhibits potent antioxidant activity that is comparable to vitamins A, C and E. Given its direct antioxidant and free radical scavenging effects, curcumin is thought to play a vital role against the oxidative damage to lipids, proteins and DNA associated with chronic illnesses such as atherosclerosis, cancer and neurodegenerative diseases. Curcumin has also been shown to protect the liver, pancreas and nervous system against the toxic effects of alcohol consumption. Furthermore, curcumin exhibits great promise as a therapeutic agent and is currently being researched in human clinical trials for conditions including Alzheimer's disease, colon cancer, multiple myeloma, pancreatic cancer, and psoriasis. Curcumin has been shown to be non-toxic even at high dosages and has been given the classification of 'generally recognized as safe' (GRAS) by the National Cancer Institute.²¹⁻²⁹

Quercetin dihydrate (*Sophora japonica*) - Quercetin is one of the most prominent dietary antioxidants found in foods, including fruit, vegetables, tea and wine. Quercetin is also found in *Sophora japonica*, a traditional Chinese herb. Quercetin exhibits strong antioxidant properties and increases glutathione levels and antioxidant enzyme function. Research has shown that quercetin protects cells against oxidative damage to both nuclear and mitochondrial DNA. Evidence also indicates that quercetin may be of therapeutic benefit in the treatment of cancer and cardiovascular disease, as well as age-related health problems resulting from oxygen free radical damage.³⁰⁻³⁹

Resveratrol (from Japanese Knotweed - *Polygonum cuspidatum*) is found in a variety of plants, with the richest source derived from the roots of Japanese knotweed, a traditional Chinese medicine. Resveratrol is produced as part of the plant's defense mechanism in response to stress conditions. Intensive research has focused on resveratrol due to its antioxidant and anti-inflammatory effects and its emerging potential for cancer prevention and promoting longevity. Resveratrol's anti-carcinogenic and anti-aging effects appear to be closely associated with its antioxidant activities. In addition, growing evidence has confirmed resveratrol's cardioprotective effects.⁴⁰⁻⁴⁸

Apple (*Malus domestica*) - Compared to many other commonly consumed fruits in the United States, apples have the second highest level of antioxidant activity. Apples contain a variety of phytochemicals, including quercetin, rutin and catechin, all of which are potent antioxidants capable of protecting cells and tissues from oxidative stress and related DNA damage. For example, research indicates that apples can inhibit cancer cell proliferation, decrease lipid (fat) oxidation, and lower cholesterol. Epidemiological studies have linked apple consumption with reduced risk of some cancers, as well as asthma, cardiovascular disease and diabetes. Plus, apple consumption has been positively associated with increased weight-loss and general pulmonary (lung) health, including increased lung function. Based on these epidemiological studies, it appears that apples may play a large role in reducing the risk of a wide variety of chronic diseases and in maintaining a healthy lifestyle.⁴⁹⁻⁵²

Açai berry (*Euterpe oleracea*), a fruit from the Amazon region of South America, is a rich source of antioxidants called polyphenols. In some regions of Brazil, açai is used for health problems related to oxidative damage, such as cardiovascular disorders. According to research, açai has demonstrated exceptional antioxidant activity against superoxide radicals, as well as the highest antioxidant capacity of any food currently reported against peroxyl radicals. In addition, plasma antioxidant capacity has been shown to increase up to 2- and 3-fold following the consumption of açai juice and pulp among healthy volunteers. Açai also exhibits anti-inflammatory properties and appears to be a potential inhibitor of COX-1 and COX-2—enzymes involved in the inflammatory response.⁵³⁻⁵⁶

Selenium, an essential trace element that must be obtained in the daily diet, is one of the most common nutrient deficiencies. Selenium is best known as an antioxidant and for its ability to reduce oxidative stress and DNA damage. However, selenium also functions as a cancer preventive agent. Selenium supplementation has demonstrated benefit in reducing the risk of cancer incidence and mortality (death), particularly in colorectal, liver, lung and prostate cancers, with the greatest effect among patients with the lowest selenium status. There is also evidence that selenium may alter cancer progression and metastasis. In addition, selenium deficiency appears to be associated with reduced thyroid hormone metabolism and the conversion of T4 to T3; carcinogenesis in various sites throughout the body; liver disease, including cirrhosis and hepatitis; rheumatoid arthritis; adult asthma; male infertility; and, chronic kidney disease. Furthermore, since increased oxidative stress contributes to the development and progression of chronic heart failure, selenium supplementation may prove beneficial by enhancing antioxidant protection.⁵⁷⁻⁶⁴

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