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The links to view these studies are at www.organicteatreeoil.com.

More information is available at: www.gluco-R.com / www.gluco-Rmed.com

Also look for Newco's topical Skin care with Sulforaphane:

DNA Repair Ointment (Extra Strength) & DNA Repair & Protect Lotion

Each capsule contains:

Broccoli Seed Powder (*Brassica oleracea italica*)*300mg
*min 10% Sulforaphane Glucosinolate (Glucoraphanin)

Non-Medicinal Ingredients: Microcrystalline Cellulose, Silicon Dioxide, Magnesium Stearate and capsule containing vegetable cellulose and water.

Recommended Adult Dose: As a dietary supplement, take 1 – 2 Veggie Caps per day with a meal or as directed by your health care practitioner.

Caution: Do not use if pregnant or breastfeeding. If you are on medication, consult a health care practitioner before using. Keep out of reach of children.

Sealed for your protection. Do not use if seal is broken. Contains no artificial color, sweeteners, soy, yeast, wheat, gluten, corn, milk, eggs, shellfish or preservatives.



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NEWCO 
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BroccoGen 10™

Sulforaphane Glucosinolate
(Glucoraphanin)



BroccoGen 10™ from Newco, Broccoli's most powerful total-body wellness nutrient

*Sulforaphane Glucosinolate Patents / *Brevets du sulforaphane:

- U.S. 7,303,770 - Cancer chemoprotective food products
- U.S. 5,725,895 - Method of preparing a food product from cruciferous seeds
- U.S. 5,968,567 - Method of preparing a food product from cruciferous sprouts
- U.S. 6,177,122 - Cancer chemoprotective food products
- U.S. 6,242,018 - Cancer chemoprotective food products
- U.S. Pat.Appln.Ser.No. 11/868,716 filed on October 8, 2007
- PCT Appln.Ser.No. PCT/US96/14866 filed on September 13, 1996
- U.S. Pat.Appln.Ser.No. 11/927,113 (US-2008-0131578) - Food or drink products, supplements or additives produced from high glucoraphanin containing broccoli
- U.S. Pat.Appln.Ser.No. 11/908,728 (US-2009-0081138) - Cancer chemoprotective compositions and natural oils and methods for making same
- U.S. Pat.Appln.Ser.No. 61/156,292 - Cancer chemoprotective compositions and natural oils and methods for making same



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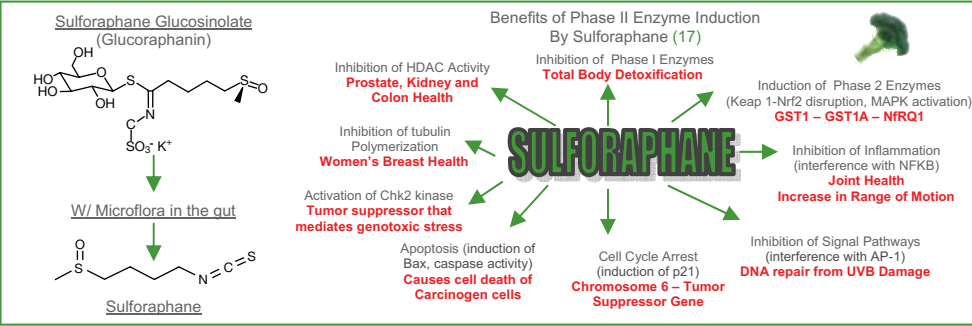
Sulforaphane Glucosinolate (SG), also referred to as Glucoraphanin, is a naturally occurring compound in cruciferous vegetables. It is found in brussels sprouts, kale, cauliflower, kohlrabi and even wasabi but is highest in broccoli, specifically seeds and sprouts. (SG content declines significantly as the broccoli plant matures). **BroccoGen 10™** is from a non-GMO source that has been specially bred through traditional farming techniques to have up to 300 times more SG than has been measured before. **BroccoGen 10™** has 10% Sulforaphane Glucosinolate (Glucoraphanin) content and holds 10 patents.



For SG to be beneficial to the body, it must first be converted into the compound "Sulforaphane" which is classified as an "Isothiocyanate" (chemical group). One of the ways this is accomplished is through interaction with the microflora in the intestinal tract (1,2). Once sulforaphane is present in the body, it has a number of health benefits including activating protective proteins like NRF2 (a transcription factor that helps control DNA information transfer).

It is also considered a monofunctional inducer which means it can induce the beneficial Phase II Enzymes while not affecting the potentially dangerous Phase I Enzymes (3) (Phase I Enzymes can actually activate a carcinogen in the body which may cause genetic damage before it can be detoxified from the body by Phase II Enzymes.) It is one of the most potent naturally occurring inducers of Phase II Enzymes that help with the body's natural defense system. These enzymes act as indirect antioxidants by supporting continuous and long lasting antioxidant reactions in the body, even after the Sulforaphane is no longer present (up to 72 hours), **promoting cellular integrity** and **repairing DNA damage** from things like ROS (Reactive Oxygen Species), chemicals, viruses and radiation - the four main contributing factors to DNA break down which is the carcinogenesis that leads to cancer. This carcinogenesis (DNA Breaking Down) can take up to 15 or 20 years before the tumor arrives. Sulforaphane has even been shown to act as an antibacterial against *Helicobacter pylori*, a strain commonly associated with gastritis and peptic ulcers and that also dramatically increases the risk of gastric cancer (4). *Helicobacter pylori* has been categorized as a class one carcinogen by the World Health Organization as a cause for stomach cancer (5).

BroccoGen 10™ is truly Broccoli's most powerful total-body wellness nutrient.



Sulforaphane's effects on the body are wide spread and widely studied. To date there have been over 1,600 clinical papers published on this incredible compound ranging in topics from Phase II Enzyme induction and protective protein activation to Diabetes Benefits, Cardiovascular System Benefits, Eye Health and its effects on multiple forms of Cancer.

Eye Health:

Oxidative stress and inflammation can be contributing factors in chronic degenerative diseases of the eye such as cataracts and age-related macular degeneration. Sulforaphane has been shown to protect specific eye cells (retinal pigment epithelial cells) from oxidative injury through the induction of Phase II Genes (6) and also reduce retinal light damage by inducing Thioredoxin (7), a protective protein, making sulforaphane a promising treatment strategy for eye diseases due to oxidative stress.

Cardiovascular System Benefits:

Oxidative stress can be a causal factor of such conditions as Hypertension (High Blood Pressure) and Atherosclerosis, a form of arteriosclerosis in which there is hardening of the artery caused specifically by a build up of fatty material like cholesterol. An increase in oxidants or free radicals can decrease the nitric oxide needed for smooth muscle function and also increases inflammation which can lead to the previously mentioned conditions. Sulforaphane has been shown to decrease oxidative stress and reduce inflammation in the cardiovascular system and a 2004 study concluded: "a diet containing phase 2 protein inducers also reduces the risk of developing cardiovascular problems of hypertension and atherosclerosis". (8)

Diabetes:

In Diabetes, there is an increased risk of vascular diseases such as retinopathy, neuropathy, heart disease and stroke (Diabetics are up to five times more likely to develop cardiovascular diseases). High blood glucose levels can cause an increase in ROS (Reactive Oxygen Species – molecules including free radicals that can damage cell structures) which can damage endothelial cells, the layer of cells that line the blood vessels in the entire circulatory system. In a 2008 study, Sulforaphane was shown to activate the protective protein nrf2 which stimulated Phase II Enzyme induction and a 73% reduction in ROS levels was observed when tested on blood vessels damage by high blood glucose levels. The authors concluded that activators of the nrf2 protein, such as Sulforaphane, are "expected to decrease the risk of vascular disease in Diabetics". (9)

Did you know broccoli leaf is edible too?

Breast:

Breast cancer is the most common cancer diagnosed in women today and the second most common cancer in the world. In clinical studies, Sulforaphane has been shown to be an effective inhibitor of human mammary carcinoma proliferation and it also now appears to affect human breast cancer promotion/progression by disrupting the cancer cell replication methods. (10)

Urinary/Bladder:

There are many known causes of urinary/bladder cancer including tobacco smoke and some industrial petroleum-based chemicals. Certain pharmaceuticals and not drinking enough water can also be contributing factors. Conclusions from a number of studies show that isothiocyanates from cruciferous vegetables can protect against bladder cancer (16). It is believed the contributing factor is the increase in Phase II Enzymes and the fact that isothiocyanate metabolites are water soluble and excreted through the urinary system giving the bladder high exposure.

Lung:

Lung cancer is the most common cancer in the world today with a low survival rate and the risk of developing lung cancer is higher in smokers than in non-smokers. Studies have shown that isothiocyanates like sulforaphane "are known to reduce lung carcinogenesis by tobacco-related carcinogens" (13) by reducing DNA damage. This particular study concluded that there is additional evidence that isothiocyanates from cruciferous vegetables protect against lung cancer. (13)

Prostate:

Prostate cancer is one of the leading causes of male cancer death. It is characterized by an early and near complete loss of the expression of glutathione s-transferase- π , a Phase II Enzyme. Sulforaphane has been found to "induce Phase II Enzyme expression and activity significantly in human prostatic cells" (14). This and other study results may provide the explanation for the correlation between high consumption of cruciferous vegetables and decreased prostate cancer risk.

CANCER

Sulforaphane's main involvement in cancer is by inducing Phase II Enzymes which help to detoxify carcinogens from the body by making them more easily excreted as well as to help stabilize cell replication and decrease inflammation. Sulforaphane has shown significant effects on a number of forms of cancer including Breast, Colon, Leukemia, Lung, Prostate, Urinary/Bladder and skin among others.

Leukemia:

Leukemia is cancer of the blood or bone marrow and is characterized by abnormal production of blood cells. Sulforaphane has been shown to induce apoptosis (programmed cell death) and also obstruct proliferation in cancer cells. An in vitro study concluded that sulforaphane showed "potent inhibition of leukemic cell growth" and it "deserves study as a potential chemopreventive/chemotherapeutic antileukemic agent". (12)

Colon:

Colon cancer is a prevalent cancer among both men and women, especially in western societies. Small doses of Sulforaphane have been shown in an in vitro study to induce apoptotic death in human colon cancer cells (11) providing a promising strategy for the treatment and prevention of colon cancer.

Skin:

Skin cancer is one of the most diagnosed yet treatable types of cancer if caught early, but the incidence is increasing. UV radiation damages DNA indirectly by causing oxidative stress. It also increases inflammation in the skin (including erythema and edema), and also causes immunosuppression. Sulforaphane has been found to provide "direct protection against the pathophysiological effects of UVR in human skin" (15). Topical application will complement internal supplementation by delivering Sulforaphane directly to the skin. Newco has two topical products for this purpose: DNA Repair Ointment and DNA Repair & Protect Lotion.*

*Please note these two products do not have an SPF factor and are to be used after UV exposure, not in place of proper SPF protection.

