Creative Enzymes®

Broccoli seed extract—Sulforaphane

Cat. No. EXTZ-639

Lot. No. (See product label)

Introduction

Description

Sulforaphane (1-isothiocyanate-4-methylsulfonylbutane), also known as "sulforaphane", is an isothiocyanate with a relative molecular weight of 177.3 and a molecular formula of C6H11S2NO. It is mainly produced by the hydrolysis of glucosinolate (4-methylsulfonylbutenethioglucoside, Glucoraphanin) in Brassica plants by myrosinase. There are many common plants in the Brassica genus, but after screening, it was found that broccoli seeds have the highest content of sulforaphane, which is about 15-550 times higher than the same period last year. Main Functions of Broccoli Seed Extract – Sulforaphane: 1. Anti-cancer Effects In 1992, Professor Talalay from Johns Hopkins University discovered its potential anti-cancer effects. By activating the Nrf2 signaling pathway, inducing the expression of phase II enzymes, and inhibiting the activity of phase I enzymes, it blocks the metabolic pathways of carcinogens. It exhibits anti-cancer properties at all stages of cellular carcinogenesis, including inducing cell apoptosis, autophagy, and inhibiting the cell cycle. It has a broad spectrum of anti-cancer effects on various types of cancer, including lung, colon, stomach, breast, ovarian, and prostate cancer. 2. Lung Health It activates the NRF2 signaling pathway, repairs macrophage function, and helps clear harmful bacteria and dead cells from the lungs. It repairs lung damage caused by smoking and alleviates symptoms of chronic obstructive pulmonary disease (COPD). Clinical studies have shown that drinking broccoli sprout juice can help the body eliminate pollutants (such as benzene). 3. Diabetes Management Clinical research has found that regularly taking high concentrations of broccoli flower bud extract can improve blood sugar control and reduce fasting blood sugar levels in patients with type 2 diabetes. 4. Protection Against UV Damage and Anti-Photoaging It inhibits UV-activated AP-1 transcription factors, reduces the generation of reactive oxygen species (ROS), inhibits the expression of matrix metalloproteinases (MMPs), induces phase II enzymes, and protects the skin from UV damage. As an antioxidant and anti-aging agent, it has anti-photoaging effects and is suitable for use in anti-aging drugs and cosmetics. 5. Anti-Inflammatory and Joint Health It inhibits the activity of enzymes that cause joint inflammation, thereby slowing down cartilage damage and relieving joint pain. Animal experiments have shown that regularly consuming foods rich in sulforaphane significantly reduces the risk of developing arthritis and cartilage damage. 6. Immune Support By activating the Nrf2 signaling pathway, it enhances the function of immune cells and supports the health of the immune system. 7. Helicobacter Pylori Eradication Studies have shown that sulforaphane has an inhibitory effect on Helicobacter pylori, which may contribute to gastric health. 8. Autism Research Preliminary studies suggest that sulforaphane may have a beneficial effect on autism symptoms, with ongoing research in this area.

Product Information

Source	Broccoli seed
Form	powder