## Mareeba Black Garlic Is a Strong Antioxidant

Black Garlic reduces allicin content by converting allicin, an unstable compound, into more stable compounds that turn out to be great antioxidants.

Black Garlic has various compounds that have **antioxidant properties**. Black garlic **decreased UV skin damage** in mice and reduced **liver damage**.

Also, black garlic juice fed to <u>insulin</u>-deficient mice **reduced harmful reactive substances** (thiobarbituric acid) that cause damage to the blood, liver, and kidneys.

**Black garlic is 10 times more effective than fresh garlic** in its antioxidant power. The garlic mimics an enzyme (superoxide dismutase) by defending cells from hydrogen peroxide, a reactive oxygen species that can cause tissue damage.

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## Mareeba Black Garlic May Help Lower Severity of Allergies

Allergies are related to immunoglobulin E (IgE) antibodies and mast cells that all contribute to promoting long-term inflammation. Specifically, a type I allergy response is activated by the IgE receptor that is on the outside surface of immune cells.

A cell study testing a 2 mg/mL treatment of black garlic resulted in the decrease of the inflammatory enzymes ( $\beta$ -hexosaminidase and TNF- $\alpha$ ). This prevented an allergic response.

In another study, 50 µg/mL of black garlic **inhibited key allergy-promoting molecules** (prostaglandin E2, leukotriene B4, and cyclooxygenase-2), and prevented signaling (phosphorylation of Syk, phospholipase A2, and 5-lipoxygenase) that can lead to cell attack by <u>immune system</u> cells called macrophages.

Mice treated with black garlic also had a decreased allergic response visible on their skin.