# Black Garlic May Reduce Inflammation

In a human cell study, 5-HMF, an antioxidant found in black garlic, **stopped the activation of nuclear factor kappa B** (NF-κB).

This is important, as this molecule controls the release of cytokines that prolong and stimulate **TNF-α activated cells**.

TNF-α activated cells promote the inflammatory response and increase blood flow, swelling, and defensive cells to the area.

Black garlic also lowered the number of proteins that join cells and create blood clots. It also lowered the number of cells that cause inflammation and cell damage.

In a cell study using macrophages (immune cells), black garlic **decreased the production of nitric oxide, TNF-α, and prostaglandin E2**, which are all key promoters of inflammation. It accomplished this by decreasing various protein and enzyme levels, specifically of NO synthase, TNF-α, and cyclooxygenase-2 protein.

Black garlic **decreased blood clotting** effects caused by platelet aggregation in both human and animal studies.

In another mouse study, rodents were given 120 mg/kg of black garlic experienced **decreased levels of cytokines** TNF-α and IL-6 in the blood.