

Aged black garlic goes functional

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Pharmactive's aged black garlic extract pleases the palate and can promote heart health



Spain based Pharmactive Biotech Products S.L. introduces its new generation of aged black garlic extract for functional food applications and the culinary market, launched under the brand ABG10+®. The extract is obtained from fresh garlic (*Allium Sativum* L.) that has been aged, a process which alters the physiochemical properties of garlic resulting in profoundly enhanced antioxidant and cardioprotective properties.

ABG10+ is derived from garlic and the first extract standardized to a higher concentration of the bioactive compound S-allyl cysteine (SAC) than in standard black garlic. SAC is a water-soluble bioactive compound acclaimed for its high antioxidant capacity and its cardiovascular benefits, as supported by multiple clinical trials.

Pharmactive uses proprietary High-Performance Liquid Chromatography (HPLC) technology to ensure this high-SAC content.

Black garlic is a culinary delicacy that has been enjoyed for centuries, particularly in India and other Asian countries such as Thailand, South Korea, and Japan. It is traditionally produced by aging whole bulbs of fresh garlic at high humidity and temperatures, a process that creates a deep black hue as well as a soft, jelly-like texture and sweet syrupy flavor. The ageing process also decreases the pH from approximately 6.0 in raw garlic to less than 3.8 in aged black garlic naturally bestowing a longer shelf life. In the West, aged black garlic has been rapidly trending as a compelling functional food used by professional chefs to flavor a range of savory dishes.

Pharmactive's formulation ABG10+ is produced via a proprietary optimized aging process through a naturally occurring chemical reaction called "autocatalysis" under rigorous temperature and humidity controls. This technique naturally enriches the garlic with its unique composition of SAC, polyphenols, and melanoidins, macromolecules responsible for the dark color. All three compounds exert potent antioxidant effects. In a recent pilot study ABG10+ demonstrated superior antioxidant

capacity in comparison to other aged garlic extracts currently on the market.

“The efficacy of our black garlic extract is backed by science and is a highly stable and bioavailable biomolecule that works to reduce oxidative damage through its superior antioxidant and cardioprotective properties,” states Alberto Espinel, head of R&D for Pharmactive. “The aging process reduces the allicin content and removes the pungent flavor associated with fresh garlic which tends to repel many consumers. The allicin is converted into a potent antioxidant complex and other bioactives characteristic of black garlic, plus boosts overall nutrient composition while increasing and releasing complex flavor notes. This makes it an excellent candidate for functional foods.”

“ABG10+ has the potential to meet growing consumer demand for healthful flavors in terms of its organoleptic versatility,” says Julia Diaz, Head of Marketing of Pharmactive.

“It offers food companies a unique opportunity to include in their products functional flavor and added value.”

Innova Market Insights reports one in ten US consumers have increased their consumption of products containing active ingredients in the past year in order to “be healthier.” Meanwhile, food formulators are increasingly placing the spotlight on scientific claims for ingredients that deliver functionality to appeal to the growing health-conscious consumer market.

Currently, the aged black garlic extract ingredient has been successfully adapted into finished products and functional foods. It can be integrated into dry preparations, such as snack bars, endowing a natural sweetness or incorporated into condiments including purées, pastes, and extracts. It pairs especially well with robust sweeteners, such as molasses, for use in sauces, relishes, and chutneys.

Aged black garlic extract also is suitable for dietary supplements. The ingredient contains no additives or preservatives and does not undergo any form of burning, caramelization, or high-heat treatment. ABG10+ is kosher and halal certified and is available in organic form as well.

Pharmactive sources its garlic bulbs from a trusted Spanish grower and assumes full supply chain control on field and throughout manufacturing. The company deploys meticulous microbiological and contaminant screening, including detection of noxious aflatoxins, pesticides, and heavy metals (as are found in some Chinese sources of garlic) and is continuously audited by regulatory agencies required to maintain its quality assurance ISO certifications.