Physiological Function of Sulfur-containing Compounds

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< Abstract >

Studies on the physiological functions of sulfur-containing compounds in foods have been carried out. Especially, organic sulfur compounds in Allium species such as onion and garlic, etc. are very important in terms of a large amount and physiological function. Major sulfur compounds in Allium species are sulfur containing amino acids, S-alk(en)y1-L-cysteine sulfoxides, and the enzymic and thermal reactions of sulfoxide amino acids with C-S lyase (alliinase) by cutting of Allium vegetables give rise to hydrophobic sulfur compounds. So far, antioxidative (volatile trisulfides and vinyldithiins), platelet aggregation inhibitory (allyl trisulfides, vinyldithiins and ajoenes), ameliorative substances of memory impairment (dipropyl trisulfide), cancer preventive (diallyl trisulfide and alkenyl trisulfides) and testosterone promoting substances (Allium sulfur amino acids) have been reported as physiologically functional constituents.