Creative Enzymes®

Thioglucosidase/Myrosinase from purple cabbage

Cat. No. NATM-100

Lot. No. (See product label)

Introduction

Description Myrosinase is an enzyme widely present in cruciferous plants, naturally produced during the growth process of plants to break down glucosinolates, generating physiologically active isothiocyanates and other compounds. The glucosinolate myrosinase system is considered to be a defense system evolved in cruciferous plants against herbivorous insects and pathogens. It is activated when plants are subjected to mechanical damage or biological attacks, and can convert glucosinolates in plants into biologically active thiocyanates and other compounds, which have a certain defensive effect on plants. Purple cabbage is a good source of myrosinase.Purple cabbage, also known as red cabbage or red cabbage, commonly known as purple cabbage, is a variety of cabbage species in the Brassicaceae family and the Brassica genus. It has rich nutritional value: in addition to abundant vitamins C, E, and B, as well as anthocyanins and cellulose, it can also serve as a natural source of myrosinase.

Applications 1. Application in the food industry Myrosinase has a wide range of applications in the food industry, especially in Japanese cuisine and some Asian cuisines, used to catalyze the hydrolysis of glucoraphanin to produce isothiocyanates. This compound has a unique aroma and bitterness, and is an important ingredient in many seasonings and foods. 2. Application in drug development In the field of drug development, myrosinase is used to synthesize compounds with pharmacological activity. For example, it can be used to convert glucoraphanin into isothiocyanates, which have various biological activities such as anti-cancer, antibacterial, and antiviral, and have become a research hotspot in new drug development. 3. Application of functional food development Myrosinase plays an important role in the development of functional foods. By catalyzing the hydrolysis of glucosinolates from radish, compounds with health benefits such as isothiocyanates can be produced. These compounds have antioxidant, anti-inflammatory and other properties, which help to enhance the nutritional value and health functions of food. 4. Application of nutritional supplements The application of myrosinase in nutritional supplements can help improve the efficacy and quality of products. By catalyzing the hydrolysis reaction of glucoraphanin, highly bioavailable isothiocyanates can be generated, which exhibit significant effects in enhancing immunity and improving cardiovascular health.

Product Information

Source	Purple cabbage
Form	powder
Activity	≥100U/g
Optimum pH	5--8
Optimum temperature	45℃