



NOVEL MULTIFUNCTIONAL PEPTIDES DERIVED FROM PALM KERNEL CAKE (PKC) PROTEIN

TECHNOLOGY DESCRIPTION

This technology is to produce proteolysate containing novel multifunctional bioactive peptides by using controlled enzymatic proteolysis with multiple health benefits to be used as bioingredient in food. This technology also relates to the peptides isolated using the screening method.

TECHNOLOGY FEATURES

The technology provides essential amino acids and functions as food ingredient that can easily be incorporated into various food systems. It also can be used for preservation of food products against spoilage microorganisms. The food produced is a natural dietary supplement which is able to reduce the risk of cardiovascular-related diseases, and protecting the body from free radicals. It can be mass-produced through cloning using GRAS host. This technology is useful for the prevention of diseases associated with oxidative stress and thus can be used as medicine, food additives and supplements.

ADVANTAGES

- Improves health
- Can be used as food preservatives
- Natural dietary supplement

INDUSTRY OVERVIEW

Prospects: Food Ingredient manufacturers, food supplement manufacturers, health-conscious consumers.

As one of the major producers and exporters of palm kernel cake, production of palm kernel cake in Malaysia has increased more than 43% to 1.62 million metric tons since 1999. Considering the fact that PKC can be used as bio-ingredient in food systems, it is expected to be mainly used in food ingredient industry. In 2011, there were nearly 3,200 manufacturers involved in the food manufacturing industry and Malaysia imported bulk of food ingredients rather than packed products. Asia Pacific is a huge and increasingly influential market in the supply of food and beverage ingredients, accounting for 35% of global use of value-added food and drink ingredients, equivalent to almost 8.5 million tons out of a global total of 24.2 million tons. The strongest ingredient markets in the region over 2012-2017 are forecast to be India, Indonesia, Pakistan and Vietnam, all of which will increase at a faster CAGR than China, although that country will lead the way in absolute volume growth.



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