

Novel health potential of bioactive peptides from egg albumin

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Abstract

Bioactive peptides, identified in various foods, have increasingly received scientific attention for the notable broad scope of their positive impact on human health beyond their nutritional characteristics. The most attractive feature of bioactive peptides is their ability to display very few side effects in humans due to their natural sources. Bioactive peptides are inactive within the sequence of the protein molecule and are released during in-vivo processing such as gastrointestinal digestion or in-vitro enzymatic hydrolysis of food proteins. The science of bioactive peptides involves the exploration of physiological activities of food peptides to formulate novel candidates for human health that may reduce the risk of disease as well as contribute to food safety. Egg albumen is a valuable source of bioactive proteins with diverse structural entities and many of them possess specific biological activities that represent potential ingredients of health-promotion. Thus, egg proteins offer tremendous opportunities for the discovery of bioactive peptide with the hope for the treatment of emerging human diseases and formulation of nutraceutical agents. In this work I will introduce an approach, in which new potential bioactive peptides were found encrypted into an egg white protein. This exciting finding explores novel bioactive peptides which heralding a fascinating opportunity for their potential candidacy as anti-microbial, anti-inflammation and anti-cancer therapeutic peptides for the treatment as well as risk reduction of emerging human diseases and for nutraceutical applications.

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Biography

Dr. Hisham R. Ibrahim is currently a Professor of Biochemistry and Structural Biology at Kagoshima University (Japan). He obtained his Master degree in Biochemistry from Yamaguchi University (Japan) in 1990, and PhD degree in Structural Biology and Protein Engineering from Tottori University (Japan) in 1993. He then become a Research Group Leader in Taiyo Kagaku Research Center (Mie, Japan) and carried out research on developing immune molecules against infectious diseases. In 1995, he became Assistant Professor at Kagoshima University, and pursued a research

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