

Enzyme Cathepsin and its Role in Meat

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Abstract

The texture is one of the most important indicators in the quality of meat products of marine and food animal products. The texture contributes in the consumers' acceptance and, consequently, the sale rate in the market. This structure of texture is variable based on the type of tissue in animal. The texture stiffness in fish meat and the tenderness in cattle determines the suitability of tissue for the consumption. The weakness of the muscular structure of the mammal during the storage and rigor mortis is desirable to eat the product. Enzyme cathepsin is useful in the hydrolysis of myofibrile proteins during storage after rigor mortis of fish and cow muscle. Cathepsin is an enzyme in the group of proteinase found in lysozyme of animal tissues which has optimum activity at low pH. This enzyme is inactive or zymogen called procathepsin. This inactive precursor is converted to pseudo-cathepsin via an auto-photolytic pathway. Cathepsin consists of two non-like subunits, each linked with calcium. In this article, the role of cathepsin examines in the muscle tissue of the animal during the period of rigor mortis, enzymatic tenderization and meat aging in the meat industry.

Keywords: Cathepsin, Proteinase Enzyme, Meat