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СИРКОВИЙ ПРОДУКТ ІЗ ГІДРОЛІЗАТОМ БІЛКІВ СИРОВАТКИ МОЛОКА

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CURD PRODUCT WITH WHEY PROTEIN HYDROLYSATE

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Sour milk curd is a product of universal purpose, which is highly digestible. In addition to direct use, it is used as a basic for the production of a wide range of curd products. A distinctive feature that characterizes sour milk curd and determines its high nutritional and biological value is the high protein content, which includes all essential amino acids. For this reason, sour milk curd and curd products based on it are a required component of the nutrition of all ages customers. However, these products are not recommended for consumption by people suffering from milk protein intolerance and very often simply are excluded from the nutrition. Studies have shown that allergy to cow's milk is the most common problem for children (38.5%) and is the second most common for adults (26.2%). The main milk allergens are whey proteins: β -lactoglobulin and α -lactalbumin. Today, to reduce the allergenicity of whey proteins, their enzymatic hydrolysis using proteases of various origins is most often used.

The aim of the work was to create a curd product based on sour milk curd, which could be recommended for people with allergies to whey proteins.

The curd product was obtained by mixing low-fat sour milk curd with whey proteins pancreatin hydrolysate. For the production of sour milk curd were selected such parameters of heat treatment, which provide a clot containing almost pure casein. Whey proteins hydrolysate was obtained by proteolysis of a whey proteins concentrate solution in physiological conditions. The introduction of the hydrolysate to the sour milk curd increases the indicators of active and titratable acidity, as well as slightly increases the water holding capacity of the obtained product in comparison with the control sample without the whey proteins hydrolysate. In addition to organoleptic and physicochemical parameters of the obtained product, its characterization was carried out using electrophoretic and chromatographic methods. Electrophoretic researches indicate that the curd product with whey proteins hydrolysate does not contain allergenic whey proteins, but there is an increase in the number of low molecular weight peptides due to the introduction of hydrolysate.

Thus, obtained by us curd product with the whey proteins hydrolysate, was characterized by reduced allergenic properties and increased biological value and can be recommended for the nutrition of persons with intolerance to whey proteins.