

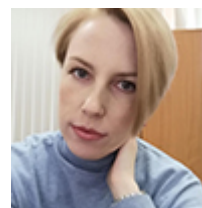
Effect of Popular Preservative on Enzyme System Studied in Russia

According to the findings of scientists, potassium sorbate has an inhibitory effect and reduces the activity of trypsin, responsible for protein breakdown.



Potassium sorbate, used as a preservative, is able to affect the enzyme trypsin, which is responsible for the breakdown of proteins. Such conclusions were reached by scientists based on the results of the conducted research, said Irina Torgashina, Associate Professor of the Department of Biophysics of the School of Fundamental Biology and Biotechnology, Siberian Federal University.

"We took trypsin, an enzyme of the pancreas that breaks down proteins and participates in their digestion. We tried to induce on it with various potentially dangerous substances — heavy metals, pesticides, and it turned out to be stable, its activity did not decrease. But when we took food preservatives, it turned out that pure potassium sorbate also has an effect on trypsin, even in values below the maximum permissible concentrations," said **Irina**



Torgashina, adding that the preservative has an inhibitory effect and significantly reduces the activity of trypsin.

Potassium sorbate is used in the manufacture of cheese and sausages as a substance that suppresses the growth of fungi. The additive is widely used in the canning of pickled vegetables, because it reduces the effects of lactic acid fermentation, which is necessary for long-term storage. Potassium sorbate is also added to fruit juices as a protection against mold and fermentation.

Also, as part of the scientific work, scientists have created a special starch shell for trypsin, which allows the enzyme to be preserved longer and used in biological research. At the same time, Irina Torgashina stressed that this enzyme cannot be used to detect heavy metals and pesticides.

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