

Ingestion of food containing staphylococcal enterotoxins produced by *Staphylococcus aureus* is a cause of staphylococcal food poisoning. Despite modern technology and safety systems applied in food industry, the reported number of staphylococcal food poisoning cases is still high worldwide. In the European Union staphylococcal enterotoxins are surveyed only in milk-based products. However the presence of staphylococcal toxins in meat-based products is also common, and a number of large staphylococcal food poisoning outbreaks was attributed to consumption of meat. Staphylococcal enterotoxins are highly stable during food processing, storage, distribution and during the preparation of the food in the kitchen. After ingestion of food containing staphylococcal enterotoxins the patients present the symptoms of gastroenteritis, including violent vomiting and diarrhea. In addition to these adverse effects staphylococcal enterotoxins are also known to contribute to the development of allergies and bowel diseases, likely acting at very low quantities.

Standard processing of a number of meat products includes curing procedure during which the meat is treated with curing salt assuring meat preservation and development of favorable color of a product. During this procedure possibility of production of staphylococcal enterotoxins by *Staphylococcus aureus* occurring in meat seem not to be eliminated. Using laboratory conditions we found that two commonly used preservatives approved for use in food can inhibit production of staphylococcal enterotoxins. We would like to verify whether these agents will also work in combination with standard curing salt in a model food, becoming a candidate food additives minimizing the risk of the consumers health related to staphylococcal enterotoxins. We would also like to develop highly sensitive method able to reveal very low amounts of staphylococcal enterotoxins in food.