

This is a provisional English translation of an excerpt from the original full report.

## **Safety Assessment Report**

### **Lipase produced using JPAo006 strain** (Genetically Modified Food)

Food Safety Commission of Japan (FSCJ)  
January 2024

#### **ABSTRACT**

The FSCJ conducted a safety assessment of “Lipase produced using the JPAo006 strain,” referring to documents submitted by the applicant.

This additive is a lipase produced from the JPAo006 strain, which was developed through introducing the recombinant lipase transgene derived from the *Thermoyces lanuginosus* CBS586.94 strain and the *Fusarium oxyporum* DSM 2692 strain into the *Aspergillus oryzae* IFO4177 strain as a host. This resulting additive is an enzyme that hydrolyzes the ester bonds of triacylglycerols to release fatty acids and is used for bread production. This additive hydrolyzes not only triacylglycerols, but also the ester bonds of polar lipids, such as phospholipids and galactolipids contained in flour, to release substances with emulsifying action, thereby contributing to improved bread dough stability.

Referring to the “Standards for Safety Assessments of Food Additives Produced Using Genetically Modified Microorganisms,<sup>1</sup>” evaluations were made regarding the safety of the inserted gene and the toxicity and allergenicity of the protein produced from the inserted gene, which indicated no additional factors that could impair safety compared to conventional additives.

Therefore, it has been concluded that “Lipase produced using the JPAo006 strain” is unlikely to pose safety concerns relevant to human health.

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<sup>1</sup> Decision of the FSCJ dated March 25, 2004