



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

## Safety Assessment Report

### **Glucoamylase produced using JPAN009 strain** (Genetically Modified Food)

Food Safety Commission of Japan (FSCJ)  
February 2022

#### **ABSTRACT**

The FSCJ conducted a safety assessment of a food additive, glucoamylase produced using JPAN009 strain, based on the documents submitted by the applicant.

This additive is glucoamylase produced using JPAN009 strain which was generated through the introduction of glucoamylase gene derived from *Trametes cingulata* TC42432 strain into *Aspergillus niger* BO-1 strain as a host. This enzyme hydrolyzes  $\alpha$ -1,4-D-glucosidic bonds from nonreducing end of polysaccharides like amylose and amylopectin producing  $\beta$ -D-glucose. It is used to improve saccharification efficiency in starch sugar production.

Referring to “Standards for Safety Assessments of Food Additives produced Using Genetically Modified Microorganisms”<sup>1</sup>, the FSCJ confirmed the following:

- i. the safety of the inserted gene; and
- ii. the toxicity and allergenicity of the protein produced from the inserted gene, and others.

Consequently, any new safety concerns were not identified, compared with conventional additives.

The FSCJ concluded that “glucoamylase produced using JPAN009 strain” has no concern relevant to human health.

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