

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

## Safety Assessment Report

## Glucoamylase produced using JPAN003 strain

(Genetically Modified Foods and Feeds)

Food Safety Commission of Japan (FSCJ) June 2021

## ABSTRACT

FSCJ conducted a safety assessment of an additive, glucoamylase produced using JPAN003 strain based on the documents submitted by the applicant.

This additive is glucoamylase produced by JPAN003 strain which was generated through the introduction of glucoamylase gene originated from *Penicillium oxalicum* LCT23 strain into *Aspergillus niger* BO-1 as the host. This enzyme hydrolyzes  $\alpha$ -1,4-D-glucosidic bonds from nonreducing end of polysaccharides like amylose and amylopectin producing  $\beta$ -D-glucose, and is used for improvement of saccharification efficiency in starch sugar production.

The documents were evaluated based on the "Standards for Safety Assessments of Food Additives Produced Using Genetically Modified Microorganisms<sup>1</sup>", from the standpoint of the safety of the inserted gene, toxicity and allergenicity of the protein produced from the inserted gene, and so on. As the result, FSCJ determined that newly produced adverse effects on humans derived from this additive are unlikely based on the comparison between this additive and the conventional counterpart.

Consequently, FSCJ concluded that "glucoamylase produced by JPAN003 strain" has no concern relevant to human health.

<sup>&</sup>lt;sup>1</sup> Decision of the Commission dated 25 March 2004.