



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

## Safety Assessment Report

### Alpha-glucosidase produced using Morph TG#626 strain (Genetically Modified Foods and Feeds)

Food Safety Commission of Japan (FSCJ)  
June 2021

#### ABSTRACT

FSCJ conducted a safety assessment of an additive,  $\alpha$ -glucosidase produced using Morph TG#626 strain, based on the documents submitted by the applicant.

This additive is  $\alpha$ -glucosidase produced by Morph TG#626 strain which was generated through introduction of  $\alpha$ -glucosidase gene derived from *Aspergillus niger* AGME 9 into *Trichoderma reesei* RL-P37 as the host. This enzyme, hydrolyzing  $\alpha$ -glucoside bonds from the non-reducing end to the exo form, catalyzes  $\alpha$ -glucose releasing reaction and is used in production of isomalto-oligosaccharide and beer.

Safety of the inserted gene, toxicity and allergenicity of the proteins produced from the inserted gene and so on were evaluated based on the “Standards for Safety Assessments of Food Additives Produced Using Genetically Modified Microorganisms<sup>1</sup>”. As the result, FSCJ considered that there was no change bringing out adverse effects on humans in the recombinant additive compared with the conventional counterpart.

Hence, FSCJ concluded that no concern relevant to human health is raised on  $\alpha$ -glucosidase produced by Morph TG#626 strain.

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