



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

Safety Assessment Report

Cellulase produced using JPTR004 strain (Genetically Modified Food)

Food Safety Commission of Japan (FSCJ)
March 2025

ABSTRACT

The FSCJ conducted a safety assessment of “Cellulase produced using the JPTR004 strain.”

This additive is a cellulase produced using the JPTR004 strain, which was developed by introducing a vector that aims to delete multiple genes on the chromosome of *Trichoderma reesei* QM6a strain as a host. No specific gene intended for expression has been inserted into the JPTR004 strain. This additive is an enzyme that hydrolyzes cellulose, which is a polymer of glucose in a linear chain. This additive is added in the processing of plant materials such as vegetables and fruits, to enhance the extraction yield of juices and other extracts.

Referring to the “Standards for Safety Assessments of Food Additives Produced Using Genetically Modified Microorganisms,¹” evaluations were made regarding the safety of the host, the safety of the inserted DNA and its donor, the toxicity and allergenicity of proteins that may be generated from the inserted DNA and the junction region between the inserted DNA and the host genome. Results of these evaluations indicated that no additional factors were found in this additive that could impair safety compared to conventional ones.

Considering the above, it has been concluded that “Cellulase produced using JPTR004 strain” is unlikely to pose safety concerns relevant to human health.

¹ Decision of the FSCJ dated March 25, 2004