



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

Safety Assessment Report

Glucose oxydase produced using GOOX-1 strain

(Genetically Modified Foods and Feeds)

Food Safety Commission of Japan (FSCJ)
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ABSTRACT

FSCJ conducted a safety assessment of an additive, glucose oxydase, produced using GOOX-1 strain based on the documents submitted by the applicant.

This additive is glucose oxydase produced using the GOOX-1 strain which was generated through the introduction of the glucose oxydase gene derived from *Acremonium chrysogenum* NBRC30055 strain into *Aspergillus oryzae* BB-56(*pyrG-*) as a host. This additive is an enzyme that oxidizes b-D-glucose into D-glucono-1,5-lactone, as well as oxidizes glucose moiety of maltose, maltooligosaccharide, galactose and others. This enzyme is used for producing gluconic acid, for coroling prevention in production of dried egg white, and for gluten formation in making bread.

In this producing strain, orotidine-5'-phosphate decarboxylase gene derived from *A. oryzae* was also introduced as a selection marker.

The documents, evaluated based on the “Standards for Safety Assessments of Food Additives Produced Using Genetically Modified Microorganisms¹”, included the safety of the inserted gene, and toxicity and allergenicity of the protein produced from the inserted gene. Consequently, newly produced adverse effects on humans derived from this additive are unlikely based on the comparison between this line and the conventional counterpart.

Consequently, FSCJ concluded that glucose oxydase produced using GOOX-1 strain has no concern relevant to human health.

¹ Decision of the Commission dated March 25, 2004.