



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

Safety Assessment Report

L-valine produced using the VAL-No.6 strain

(Genetically Modified Food)

Food Safety Commission of Japan (FSCJ)

September 2025

ABSTRACT

The FSCJ conducted a safety assessment of “L-valine produced using the VAL-No.6 strain”

This additive is an L-valine produced using the VAL-No.6 strain, which was generated by introducing the transgenes related to the biosynthesis of L-valine derived from *Escherichia coli* K-12 strain into the MG1655-ivlG,ilvH strain, a mutant strain of the *E. coli* K-12 strain as a host. This additive is used in sports nutrition foods, beverages, and seasonings *etc.*, intended for nutritional supplementation.

Since it has been demonstrated that all DNA inserted into the production strain VAL-No.6 is derived from *E. coli* K-12 and its mutants, or from bacteriophages infecting *E. coli* or transposons hosted by *E. coli* it is considered that live cells having the same genome structure as the VAL-No.6 strain could exist in the natural environment.

Regarding this additive, the FSCJ concluded that a safety assessment was unnecessary because it is produced using the microorganism which falls under “Cases in which Live Cells Having Same Genome Structure as the Genetically Modified Organism Exist in Natural Environment” stated in Chapter 1: General Provisions, Section2 “Objective and Target Additives” of “Guidelines for Safety Assessments of Food Additives Produced Using Genetically Modified Microorganisms¹”.

¹ Decision of FSCJ, March 25, 2004