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**Meat and meat products —
Determination of L-(+)-glutamic acid
content — Reference method**

*Viande et produits à base de viande — Détermination de la teneur en
acide L-(+)-glutamique — Méthode de référence*

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 6, *Meat, poultry, fish, eggs and their products*.

This third edition cancels and replaces the second edition (ISO 4134:1999), which has been technically revised. The main changes compared with the previous edition are as follows:

- a new test method, the light absorption microplate reader method, has been added;
- the order of the clauses has been rearranged;
- the Scope ([Clause 1](#)) has been revised to specify free L-(+)-glutamic acid in meat and meat products;
- the Normative references ([Clause 2](#)) have been updated;
- the Terms and definitions ([Clause 3](#)) have been modified by adding the term “free L-(+)-glutamic acid”;
- in [Clause 4](#), the description of “extraction of L-(+)-glutamic acid of test portion” has been modified and the detection wavelength has been changed from “492 nm” to “490 nm”;
- in [7.1](#), the identification of enzyme activity units for diaphorase and glutamate dehydrogenase has been supplemented; the concentration of KOH, NAD has been modified; the NAD and diaphorase have been mixed into a solution; and the buffer, NAD and enzymes have been labelled with R1, R2, and R3;
- the apparatus list ([7.2](#)) has been updated;
- in [7.3](#), the procedure of the test method of spectrophotometer has been modified by halving the sample mass and solution volume;
- in [7.3.4](#), the method of judging the absorbance of the reaction end point has been modified and, as a result, the previous Annex B “Example of plotting and extrapolation of absorbance values” has been deleted;