



SLOVENSKI STANDARD SIST EN 17881:2024

01-september-2024

Pristnost živil - Črtno kodiranje DNK školjk in proizvodov, pridobljenih iz školjk, z uporabo definiranega mitohondrijskega genskega segmenta 16S rRNA

Food authenticity - DNA barcoding of bivalves and products derived from bivalves using a defined mitochondrial 16S rRNA gene segment

Lebensmittelauthentizität - DNA-Barcoding von Muscheln und Muschelprodukten anhand eines definierten mitochondrialen 16S rRNA-Genabschnittes

Authenticité des aliments - Codage à barres de l'ADN de bivalves et produits dérivés de bivalves à l'aide d'un segment défini du gène de l'ARNr 16S mitochondrial

Ta slovenski standard je istoveten z: EN 17881:2024

[SIST EN 17881:2024](https://standards.sist.net/catalog/standards/sist/en/17881/2024/en/17881:2024)

ICS:

35.040.50	Tehnike za samodejno razpoznavanje in zajem podatkov	Automatic identification and data capture techniques
67.020	Procesi v živilski industriji	Processes in the food industry
67.120.30	Ribe in ribji proizvodi	Fish and fishery products

SIST EN 17881:2024

en,fr,de

EUROPEAN STANDARD

EN 17881

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2024

ICS 07.080; 67.020; 67.120.30

English Version

Food authenticity - DNA barcoding of bivalves and products derived from bivalves using a defined mitochondrial 16S rRNA gene segment

Authenticité des aliments - Codage à barres de l'ADN de bivalves et produits dérivés de bivalves à l'aide d'un segment défini du gène de l'ARNr 16S mitochondrial

Lebensmittelauthenzität - DNA-Barcoding von Muscheln und Muschelprodukten anhand eines definierten mitochondrialen 16S rRNA-Genabschnittes

This European Standard was approved by CEN on 17 June 2024.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.

[SIST EN 17881:2024](https://standards.iteh.ai/catalog/standards/sist/86e84e25-f710-4373-a8ed-8f8fa2344cdd/sist-en-17881-2024)

<https://standards.iteh.ai/catalog/standards/sist/86e84e25-f710-4373-a8ed-8f8fa2344cdd/sist-en-17881-2024>



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents	Page
European foreword.....	3
Introduction	4
1 Scope.....	5
2 Normative references.....	5
3 Terms and definitions	5
4 Symbols and abbreviations	7
5 Principle	7
6 Reagents and materials.....	7
7 Apparatus.....	8
8 Procedure.....	8
8.1 Sample preparation.....	8
8.2 DNA extraction	8
8.3 PCR.....	8
8.4 Evaluation of PCR products	10
8.5 Evaluation of the PCR results.....	10
9 Sequencing.....	11
9.1 Sequencing of PCR products.....	11
9.2 Evaluation of sequence data.....	11
9.3 Comparison of the sequence with GenBank®	11
10 Interpretation of database query results.....	12
11 Validation status and performance criteria	13
12 Test report.....	14
Annex A (informative) Practical laboratory data for 16S rRNA barcoding of exemplary bivalve species	16
Bibliography.....	17

European foreword

This document (EN 17881:2024) has been prepared by Technical Committee CEN/TC 460 “Food authenticity”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 2025, and conflicting national standards shall be withdrawn at the latest by January 2025.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

[SIST EN 17881:2024](#)

<https://standards.iteh.ai/catalog/standards/sist/86e84e25-f710-4373-a8ed-8f8fa2344cdd/sist-en-17881-2024>

EN 17881:2024 (E)**Introduction**

Food safety is a key aspect in terms of consumer protection. In the last three decades, globalization has taken place in the trade of food. Seafood trade channels are becoming steadily longer and more complicated so sophisticated traceability tools are needed to ensure food safety. Correct food labelling is a prerequisite to ensure safe seafood products and fair trade as well as to minimize illegal, unreported, and unregulated (IUU) fishing. Seafood products are increasingly being processed in export countries. Especially bivalves are often sold without shells. That makes the identification of species by morphological characteristics impossible.

The development of harmonized and standardized protocols for the authentication of bivalve products is necessary to establish reliable methods for the detection of potential food fraud.

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

[SIST EN 17881:2024](https://standards.iteh.ai/catalog/standards/sist/86e84e25-f710-4373-a8ed-8f8fa2344cdd/sist-en-17881-2024)

<https://standards.iteh.ai/catalog/standards/sist/86e84e25-f710-4373-a8ed-8f8fa2344cdd/sist-en-17881-2024>