

## SLOVENSKI STANDARD SIST EN ISO 11133:2014/oprA2:2018

01-marec-2018

Mikrobiologija živil, krme in vode - Priprava, izdelava, skladiščenje in preskušanje lastnosti gojišč - Dopolnilo A2 (ISO 11133:2014/DAmd 2:2017)

Microbiology of food, animal feed and water - Preparation, production, storage and performance testing of culture media - Amendment 2 (ISO 11133:2014/DAmd 2:2017)

Mikrobiologie von Lebensmitteln, Futtermitteln und Wasser-Vorbereitung, Herstellung, Lagerung und Leistungsprüfung von Nährmedien (ISO 11133:2014/DAM 2:2017)

Microbiologie des aliments, des aliments pour animaux et de l'eau - Préparation, production, stockage et essais de performance des milieux de culture - Amendement 2 (ISO 11133:2014/DAmd 2:2017)

Ta slovenski standard je istoveten z EN ISO 11133:2014/prA2

ICS:

07.100.30 Mikrobiologija živil Food microbiology

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## DRAFT AMENDMENT ISO 11133:2014/DAM 2

ISO/TC **34**/SC **9** 

Secretariat: AFNOR

Voting begins on: **2017-12-12** 

Voting terminates on:

2018-03-06

# Microbiology of food, animal feed and water — Preparation, production, storage and performance testing of culture media

#### **AMENDMENT 2**

Microbiologie des aliments, des aliments pour animaux et de l'eau — Préparation, production, stockage et essais de performance des milieux de culture

AMENDEMENT 2

ICS: 07.100.20; 07.100.30

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Member bodies are requested to consult relevant national interests in ISO/TC 147/SC 4 before casting their ballot to the e-Balloting application.

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The committee responsible for this document is ISO/34, Food products, Subcommittee SC 9, Microbiology.

SIST EN ISO 11133:2014/oprA2:2018

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### Microbiology of food, animal feed and water — Preparation, production, storage and performance testing of culture media

#### **AMENDMENT 2**

## Annex K (normative)

#### Performance testing of confirmation media and reagents

#### K.1 General

This Annex specifies control strains for the performance testing of confirmation and characterization media, reagents, dyes, stains and materials described in standards for the microbiological examination of samples from the food chain and water.

For the microbiological media and reagents under test, the inoculum used is a subculture of an isolated colony. Therefore the method of performance testing for these products is qualitative.

The shortest permissible incubation time in the International Standard should be used for the positive control organism(s), whilst the longest permissible incubation time should be used for the negative control organisms.

The strains chosen in Table K.1 have been selected preferentially from those already cited in ISO 11133:2014. If a suitable strain was not available from this source, a strain from the catalogue of organisms compiled by the World Data Centre for Microorganisms (WDCM)<sup>[20]</sup> has been selected.

In most cases, more than one control strain has been listed in Table K1 for both positive and negative reactions. The user may choose any of the strains cited for positive and negative reactions. Refer to the relevant standard for the expected results for the target organism.

If control strains for performance testing of confirmation media and reagents are already specified in the International Standard, for example as in ISO 10272 (*Campylobacter*) and ISO 10273 (*Yersinia enterocolitica*), they have not been included in Table K.1. In addition, serological reagents have not been included.

If commercially-sourced media or reagents are used, follow the manufacturer's instructions, including time, temperature and conditions of performance. If the instructions do not include control strains, choose a positive and a negative strain from Table K.1.

Table A.1 — Control strains for confirmation media and reagents included in ISO standards from ISO/TC 34/SC 9, ISO/TC34/SC 5 and ISO/TC 147/SC 4

| Confirmation me-<br>dium/ reagent            | ISO Standard | Function   | Control strains <sup>a</sup>   | WDCM <sup>b</sup><br>numbers | Characteristic reactions   |
|--|--------------|--|--|------------------------------|--|
| Acetamide broth<br>with Nessler's<br>reagent | 16266        | Detection of ammonia<br>production from aceta-<br>mide | Pseudomonas aeruginosa   | 00024                        | Positive reaction:   |
|  |              |  |  | 00025                        | Yellow to brick red after<br>adding 1-2 drops of Ness-<br>ler's reagent                |
|  |              |  |  | 00026                        |  |
|  |              |  | Escherichia coli   | 00012                        | Negative reaction: No yellow to brick red colour                                       |
|  |              |  |  | 00013                        |  |
|  |              |  |  | 00090                        |  |
|  |              |  |  | 00179                        |  |
|  | 21567        | Growth on acetate                                      | Escherichia coli   | 00012                        | Positive reaction: Blue colonies with surrounding medium blue/                         |
|  |              |  |  | 00013                        |  |
|  |              |  |  | 00179                        |  |
| Acetate agar                                 |              |  |  | 00090                        |  |
| (Sodium acetate agar)                        |              |  |  |                              | Negative reaction:   |
| 87   |              |  | Shigella.sonnei  | 00127                        | No growth or very weak<br>growth, no colour change<br>of the medium (remains<br>green) |
|  |              |  | Shigella flexneri  | 00125 Adib                   |  |
| Acid phosphatase<br>reagent                  | 14189        | Detection of acid phosphatase                          | O.E.   | 00007                        | Positive reaction:<br>Purplish colour  |
|  |              |  | Clostridium perfringens  | 00080                        |  |
|  |              |  |  | 00174                        |  |
|  |              |  | Clostridium bifermentans   | 00079                        | Negative reaction:   |
|  |              |  |  |                              | No purplish colour   |
| Arginine dihydro-<br>lase saline medium      | 21872        | uniyar olase   | Vibrio William Comments of the | 00137                        | Positive reaction:   |
|  |              |  |  |                              | turbidity and violet/pur-<br>ple colour  |
|  |              |  | Vibrio parahaemolyticus  | 00037                        | Negative reaction:   |
|  |              |  |  | 00185                        | yellow colour  |
| Bile-aesculin-azide<br>agar                  |              | Detection of aesculin hydrolysis                       | Enterococcus faecalis  | 00009                        |  |
|  |              |  |  | 00087                        | Positive reaction:   |
|  |              |  |  | 00176                        | Tan to black colour in the   |
|  |              |  | Enterococcus faecium   | 00177                        | surrounding medium   |
|  |              |  |  | 00178                        |  |
|  |              |  | Aerococcus viridans  | 00061                        |  |
|  |              |  | Escherichia coli   | 00012                        | Negative reaction:   |
|  |              |  |  | 00013                        | No tan to black colour in the surrounding medium                                       |
|  |              |  |  | 00090                        |  |
|  |              |  |  | 00179                        |  |

a Strain free of choice

b Make reference to the reference strain catalogue available on <a href="http://www.wfcc.info">http://www.wfcc.info</a> for information on culture collection strain numbers and contact details [20]

Some national restrictions and directions may require the use of a different serovar. Make reference to national requirements relating to the choice of Salmonella serovars

d Non-toxigenic strain of *E.coli* serotype O157

Weak coagulase - producing strain of S.aureus

Table A.1 (continued)

| Confirmation me-<br>dium/ reagent   | ISO Standard       | Function                                    | Control strains <sup>a</sup>                 | WDCMb<br>numbers | Characteristic reactions   |
|---|--------------------|---|--|------------------|--|
| CAMP medium with<br>Staphylococcus au-<br>reus WDCM 00034<br>and Rhodococcus<br>equi WDCM 00028 | 11290-1<br>11290-2 | Detection of CAMP reaction                  |  |                  | Positive reaction:   |
|   |                    |   | Listeria monocytogenes                       | 00020<br>00021   | Enhanced zone of β-haemolysis at the intersection of the test strain with each of the cultures of Staphylococcus aureus and Rhodococcus equi |
|   |                    |   | Listeria ivanovii                            | 00018            | Negative reaction: No enhanced zone  |
|   |                    |   | L.innocua                                    | 00017            | No zone  |
| Carbohydrate utilization broths with different carbohydrates and different indicators           | 11290-1            | Detection of carbohy-<br>drate fermentation | Escherichia coli                             | 00012            |  |
|   | 11290-2            |   |  | 00013            | Positive reaction: Change of colour to yellow  |
|   | 21567              |   |  | 00090            |  |
|   | 10273              |   |  | 000179           |  |
|   | 22964              |   | Proteus mirabilis                            | 00123            | Negative reaction: no change in colour   |
|   |                    | peroxide solution                           | Staphylococcus aureus                        | 00032            | Positive reaction: Formation of bubbles of oxygen  |
| Catalase reagent<br>(3 % hydrogen per-<br>oxide solution)                                       |                    |   |  | 00034            |  |
|   |                    |   | Campylobacter jejuni                         | 00005            |  |
|   |                    |   | Mild Albis Albis                             | 00020            |  |
|   | 9232               |   | Listeria monocytogenes                       | 00021            |  |
|   | 10272-1            |   | Listeria innocua                             | 00017            |  |
|   | 10272-2            |   | Listeria ivanovii                            | 00018            |  |
|   | 11290-1            |   | E faecalis                                   | 00009            |  |
|   | 11290-2            | i hail                                      | E faecalis                                   | 00087            |  |
|   |                    | Teh Ge Fil                                  |  | 00176            | Negative reaction:   |
|   |                    |   | Enterococcus faecium                         | 00177            | No formation of bubbles of oxygen  |
|   |                    |   |  | 00178            |  |
|   |                    |   | Lactobacillus delbreuckii<br>ssp. bulgaricus | 00121            |  |
| Citrate agar (Christensen's citrate agar)   | 21567              | Growth on citrate                           | Enterobacter aerogenes                       | 00175            | Positive reaction:   |
|   |                    |   | Enterobacter cloacae                         | 00083            | cream/pink growth with<br>surrounding medium red   |
|   |                    |   | Shigella sonnei                              | 00127            | Negative reaction: No growth   |
|   |                    |   | Shigella flexneri                            | 00125            |  |
|   |                    |   |  | 00126            |  |
| Glucose agar<br>O-F medium with<br>overlay  | 44050              | Production of acid from glucose             | Escherichia coli                             | 00012            |  |
|   |                    |   |  | 00013            | Positive reaction:   |
|   | 11059              |   |  | 00090            | Yellow colour  |
|   | 21528-1<br>21528-2 |   |  | 00179            |  |
|   |                    |   | Pseudomonas aeruginosa                       | 00025            | Negative reaction:   |
|   |                    |   | Pseudomonas fluorescens                      | 00115            | growth, but no yellow colour development   |

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