ISO 10273:2017-03 (E)

Microbiology of the food chain - Horizontal method for the detection of pathogenic Yersinia enterocolitica

Contents

Page

Foreword v

Introduction vii

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 1

4 Abbreviated terms 2

5 Principle 2
5.1 General 2
5.2 Direct plating from liquid enrichment medium 2
5.3 Enrichment in liquid enrichment medium and selective liquid enrichment medium 2
5.4 Plating out after enrichment and identification 2
5.5 Confirmation 3

6 Culture media and reagents 3

7 Equipment and consumables 3

8 Sampling 3

9 Preparation of test sample 4

10 Procedure (as shown in Annex A) 4
10.1 Test portion and initial suspension 4
10.2 Direct plating on selective agar 4
10.3 Enrichment 5
10.4 Plating out and incubation of plates 5
10.4.1 Plating from PSB and ITC by KOH treatment on CIN agar 5
10.4.2 Plating from PSB and ITC by KOH treatment on chromogenic agar (optional) 5
10.5 Identification of characteristic colonies 5
10.6 Confirmation 6
10.6.1 General 6
10.6.2 Selection of colonies for confirmation 6
10.6.3 Determination of pathogenic Yersinia species 6
10.6.4 Confirmation of pathogenic Y. enterocolitica 8
10.6.5 Interpretation of confirmation tests for Y. enterocolitica 10
10.6.6 Interpretation of confirmation tests for pathogenic Y. enterocolitica 10
10.7 Biotyping of Y. enterocolitica (optional) 10
10.7.1 General 10
10.7.2 Fermentation of xylose 11
10.7.3 Tween-esterase test 11
10.7.4 Fermentation of salicin (optional) and trehalose 11
10.7.5 Indole formation 11
10.7.6 Interpretation of biotyping tests 11

11 Expression of results 12

12 Performance characteristics of the method 12
12.1 Interlaboratory study 12
12.2 Sensitivity 12
12.3 Specificity 12
12.4 LOD50 12

13 Test report 12

14 Quality assurance 13

Annex A (normative) Diagrams of the procedures 14

Annex B (normative) Composition and preparation of culture media and reagents 17

Annex C (informative) Method validation studies and performance characteristics 32

Annex D (informative) Procedure for cold enrichment 34

Bibliography 39