
Mikrobiologija v prehranski verigi - Horizontalna metoda za ugotavljanje prisotnosti, štetja in serotipizacije Salmonella - 4. del: Identifikacija monofazne Salmonella Typhimurium (1,4,[5],12:i:-) s polimerazno verižno reakcijo (PCR) (ISO 6579-4:2025)

Microbiology of the food chain - Horizontal method for the detection, enumeration and serotyping of Salmonella - Part 4: Identification of monophasic Salmonella Typhimurium (1,4,[5],12:i:-) by polymerase chain reaction (PCR) (ISO 6579-4:2025)

Mikrobiologie der Lebensmittelkette - Horizontales Verfahren zum Nachweis von Salmonella spp. - Teil 4: Identifizierung von monophasischen Salmonella Typhimurium (1,4,[5],12:i:-) durch Polymerase-Kettenreaktion (PCR) (ISO 6579-4:2025)

Microbiologie de la chaîne alimentaire - Méthode horizontale pour la recherche, le dénombrement et le sérotypage des Salmonella - Partie 4: Identification du variant monophasique de Salmonella Typhimurium (1,4,[5],12:i:-) par réaction de polymérisation en chaîne (PCR) (ISO 6579-4:2025)

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Microbiology of the food chain - Horizontal method for the detection, enumeration and serotyping of Salmonella - Part 4: Identification of monophasic Salmonella Typhimurium (1,4,[5],12:i:-) by polymerase chain reaction (PCR) (ISO 6579-4:2025)

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Mikrobiologie der Lebensmittelkette - Horizontales Verfahren zum Nachweis, zur Zählung und zur Serotypisierung von Salmonellen - Teil 4: Identifizierung von monophasischen Salmonella Typhimurium (1,4,[5],12:i:-) durch Polymerase-Kettenreaktion (PCR) (ISO 6579-4:2025)

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European foreword

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International Standard

ISO 6579-4

Microbiology of the food chain — Horizontal method for the detection, enumeration and serotyping of *Salmonella* —

Part 4:

Identification of monophasic *Salmonella* Typhimurium (1,4,[5],12:i:-) by polymerase chain reaction (PCR)

*Microbiologie de la chaîne alimentaire — Méthode horizontale
pour la recherche, le dénombrement et le sérotypage des
Salmonella —*

*Partie 4: Identification du variant monophasique de
Salmonella Typhimurium (1,4,[5],12:i:-) par réaction de
polymérisation en chaîne (PCR)*

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ISO 6579-4:2025(en)**Introduction**

In several international, regional and national laws, regulatory limits are set to ensure the so-called “absence” of *Salmonella* spp. in samples of the food chain. Moreover, several European Commission (EC) regulations also demand the absence of particular *Salmonella* serovars which have shown to cause a relatively high percentage of human salmonellosis. One of these *Salmonella* serovars for which legal criteria are set is *Salmonella* Typhimurium, including its monophasic variant 1,4,[5],12:i:- (e.g. Regulation (EC) No. 1086/2011^[10]). Hence, it is important to know that a serovar found with antigenic formula 1,4,[5],12:i:- is indeed the monophasic variant of *Salmonella* Typhimurium (1,4,[5],12:i:1,2) and not the monophasic variant of another *Salmonella* (*S.*) serovar for which no criteria are set, such as *S.* Lagos (1,4,[5],12:i:1,5), *S.* Agama (4,12:i:1,6), *S.* Farsta (4,[5],12:i:e,n,x), *S.* Tsevie (1,4,12:i:e,n,z₁₅), *S.* Gloucester (1,4,12,27:i:l,w) or *S.* Tumodi (1,4,12:i:z₆). Confirmational distinction between *Salmonella* Typhimurium and *Salmonella* non-Typhimurium serovars can be determined using molecular analysis, such as the PCR technique(s) described in this document.

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