

Biosafety Clearing-House (BCH)

BIOSAFETY VIRTUAL LIBRARY RESOURCES (VLR)

BCH-VLR-SCBD-116269-1

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General Information

Title

Guidance document on multiplex real-time PCR methods

EN

Type of resource

Capacity-building related

FAQs

Guide

Manual

Technical guide

Tutorial

Catalogues

Dictionary

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JRC Publications Repository

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Access to the resource(s)

Link to the resource(s)

? [\[ONLINE\] Guidance document on multiplex real-time PCR methods](#) (*English*)

? [\[PDF\] Guidance document on multiplex real-time PCR methods \(62 pages - 1.63 MB\)](#) (*English*)

Information on the content of the resource

Summary, abstract or table of contents

Polymerase Chain Reaction (PCR) is considered the gold standard technique for the detection and quantification of Genetically Modified (GM) food, feed and seeds. The combination of two or more PCR tests in a single reaction tube is referred to as multiplex PCR and is a powerful approach already adopted by many testing laboratories. Multiplex PCR can address the need for increased and more efficient testing for the presence of GMOs in food, feed or seeds and for the quantification of the GM event. Although real-time PCR has been used for GMO testing for many years as well as for research, forensic or diagnostic purposes, a comprehensive guidance on the development and implementation of multiplex PCR is currently not available. This document has been developed by experts from the European Network of GMO Laboratories (ENGL). It provides background information on the technical aspects of multiplex PCR (mpPCR), including information on instruments, fluorescent dye selection and reaction controls. It gives guidance on how to implement a previously validated mpPCR method (i.e. method verification), as well as how to develop and validate a new mpPCR method. Guidance on criteria for the acceptance of methods, examples of how to assess these criteria and troubleshooting tips are given. Finally, a list of currently used mpPCR methods is included.

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Keywords for facilitating searching for information in the clearing-houses

Biosafety Thematic Areas

Capacity-building and financial resources

Training

Scientific and technical issues

Food and feed safety

Detection

Does this resource address one or more specific LMOs?

No

Does this resource address one or more specific organisms?

No

Does this resource address one or more specific genetic elements?

No

Additional Information

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Keywords and any other relevant information

technical reports; agriculture; safety; standards; PCR; multiplex pCR; mpPCR

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Further Information

Questions about the Cartagena Protocol on Biosafety or the operation of the Biosafety Clearing-House may be directed to the Secretariat of the Convention on Biological Diversity.

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