
**Microbiology of the food chain —
Methods for the detection of
Anisakidae L3 larvae in fish and
fishery products —**

**Part 1:
UV-press method**

*Microbiologie de la chaîne alimentaire — Méthodes de recherche des
larves L3 d'Anisakidae dans le poisson et les produits de la pêche —*

Partie 1: Méthode presse/UV

ISO 23036-1:2021

<https://standards.iteh.ai/catalog/standards/iso/e12201c5-9458-4fff-9ad2-bae11cae9abc/iso-23036-1-2021>



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

ISO 23036-1:2021

<https://standards.iteh.ai/catalog/standards/iso/c12201c5-9458-4fff-9ad2-bae11cae9abc/iso-23036-1-2021>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2021

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle	2
5 Equipment and consumables	2
6 Sampling	2
7 Procedure	2
7.1 Weighing the sample.....	2
7.2 Preparation of the sample.....	3
7.3 Pressing.....	3
7.4 Freezing.....	3
7.5 Thawing.....	3
7.6 Visual inspection.....	3
8 Expression of the results	4
9 Performance characteristics of the method	4
10 Test report	4
11 Quality assurance	4
Annex A (informative) Sample collection	5
Annex B (informative) Findings after UV-press method	6
Annex C (informative) Example of a laboratory worksheet for recording data when testing fish fillets with the UV-press method	8
Bibliography	9

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 9, *Microbiology*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 275, *Food analysis — Horizontal methods*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

A list of all parts in the ISO 23036 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

Nematodes of the Anisakidae family have a complex life cycle involving a high number of hosts. Adult stages of Anisakidae reside in the stomach of marine mammals, where they are embedded in the mucosa. Unembryonated eggs produced by adult females are released with the faeces of marine mammals and become embryonated in seawater, where first-stage larvae (L1) develop in the eggs. The larvae moult to become free-swimming second-stage larvae (L2) and, if ingested by crustaceans, mature into third-stage larvae (L3). This stage is infective to fish and squid, and larvae are transferred between fishes through predation, maintaining the L3 stage. Some larvae migrate from the abdominal cavity into muscle tissues. Humans are incidental hosts and can be infected after ingesting raw or undercooked infected fish or cephalopods containing viable L3.

Nematodes of the family Anisakidae are the causative agents of human anisakidosis, a disease that is not only a public health hazard affecting humans, but also represents an economic problem in fishery and food safety (the term “anisakiasis”, designating the disease caused by members of the genus *Anisakis*, is also sometimes used). Worldwide, marine and wild anadromous fishes are intermediate hosts of Anisakidae, whereas marine mammals are the definitive hosts.

Visual inspection procedures for the detection of Anisakidae larvae in fish are employed to minimize the risk that contaminated fish will reach the consumer,^{[1],[2]} thus preventing human anisakidosis.

The UV-press and the artificial digestion of fish muscle tissues are the methods specifically designed to detect nematode larvae in fish and to evaluate the infestation level of a batch, and have been validated and tested in multicentre collaborative studies^[3] (see [Clause 9](#)).

iteh Standards

(<https://standards.iteh.ai>)

Document Preview

ISO 23036-1:2021

<https://standards.iteh.ai/catalog/standards/iso/e12201c5-9458-4fff-9ad2-bae11cae9abc/iso-23036-1-2021>

