



SLOVENSKI STANDARD SIST EN ISO 23588:2024

01-september-2024

Radiološka zaščita - Splošne zahteve za preskuse strokovne usposobljenosti za radiobioanalizo in vivo (ISO 23588:2023)

Radiological protection - General requirements for proficiency tests for in vivo radiobioassay (ISO 23588:2023)

Strahlenschutz - Allgemeine Anforderungen an Eignungsprüfungen für in vivo Bioassays (ISO 23588:2023)

Radioprotection - Exigences générales concernant les essais d'aptitude pour les mesures d'anthroporadiométrie (mesures in vivo) (ISO 23588:2023)

Ta slovenski standard je istoveten z: EN ISO 23588:2024

[SIST EN ISO 23588:2024](https://standards.sist.si/catalog/standards/sist/en-iso-23588-2024)

<https://standards.sist.si/catalog/standards/sist/en-iso-23588-2024>

ICS:

13.280 Varstvo pred sevanjem Radiation protection

SIST EN ISO 23588:2024

en,fr,de

EUROPEAN STANDARD

EN ISO 23588

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2024

ICS 13.280

English Version

Radiological protection - General requirements for proficiency tests for in vivo radiobioassay (ISO 23588:2023)

Radioprotection - Exigences générales concernant les essais d'aptitude pour les mesures d'anthroporadiométrie (mesures in vivo) (ISO 23588:2023)

Strahlenschutz - Allgemeine Anforderungen an Eignungsprüfungen für in-vivo Bioassays (ISO 23588:2023)

This European Standard was approved by CEN on 7 July 2024.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.

<https://standards.iteh.ai/catalog/standards/sist/aa7c6543-8d93-4a2c-8761-aebe734d80be/sist-en-iso-23588-2024>



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents	Page
European foreword.....	3

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

[SIST EN ISO 23588:2024](#)

<https://standards.itih.ai/catalog/standards/sist/aa7c6543-8d93-4a2c-8761-aebe734d80be/sist-en-iso-23588-2024>

European foreword

The text of ISO 23588:2023 has been prepared by Technical Committee ISO/TC 85 “Nuclear energy, nuclear technologies, and radiological protection” of the International Organization for Standardization (ISO) and has been taken over as EN ISO 23588:2024 by Technical Committee CEN/TC 430 “Nuclear energy, nuclear technologies, and radiological protection” the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 2025, and conflicting national standards shall be withdrawn at the latest by January 2025.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

(<https://standards.iteh.ai>)
Endorsement notice
Document Preview

The text of ISO 23588:2023 has been approved by CEN as EN ISO 23588:2024 without any modification.

[SIST EN ISO 23588:2024](https://standards.iteh.ai/catalog/standards/sist/aa7c6543-8d93-4a2c-8761-aebe734d80be/sist-en-iso-23588-2024)

<https://standards.iteh.ai/catalog/standards/sist/aa7c6543-8d93-4a2c-8761-aebe734d80be/sist-en-iso-23588-2024>

INTERNATIONAL STANDARD

ISO 23588

First edition
2023-02

Radiological protection — General requirements for proficiency tests for in vivo radiobioassay

*Radioprotection — Exigences générales concernant les essais
d'aptitude pour les mesures d'anthroporadiométrie (mesures in vivo)*

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

[SIST EN ISO 23588:2024](https://standards.iteh.ai/catalog/standards/sist/aa7c6543-8d93-4a2c-8761-aebe734d80be/sist-en-iso-23588-2024)

<https://standards.iteh.ai/catalog/standards/sist/aa7c6543-8d93-4a2c-8761-aebe734d80be/sist-en-iso-23588-2024>



Reference number
ISO 23588:2023(E)

© ISO 2023

ISO 23588:2023(E)

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

[SIST EN ISO 23588:2024](https://standards.iteh.ai/catalog/standards/sist/aa7c6543-8d93-4a2c-8761-aebe734d80be/sist-en-iso-23588-2024)

<https://standards.iteh.ai/catalog/standards/sist/aa7c6543-8d93-4a2c-8761-aebe734d80be/sist-en-iso-23588-2024>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2023

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 Planning	2
4.1 Determination of the type of proficiency test.....	2
4.2 Choice of measurement tasks.....	3
4.3 Selection of radionuclides.....	3
4.4 Selection of activity ranges.....	3
4.5 Choice of phantom.....	4
4.6 Announcement of the proficiency test.....	4
5 Preparation of phantoms and sources	5
5.1 Preparation of phantoms.....	5
5.2 Preparation of sources.....	5
5.3 Quality assurance.....	5
6 Conducting the proficiency test	5
6.1 General.....	5
6.2 Preparation of the phantom at the participant's facility.....	6
6.3 Measurement of the phantom by the participants.....	6
6.4 Reporting protocol.....	6
7 Data analysis and evaluation of results	7
7.1 General.....	7
7.2 Determination of the assigned value.....	7
7.3 Calculation of the performance scores.....	8
7.4 Report.....	8
Annex A (informative) Example schedule for a proficiency test	9
Annex B (informative) Example measurement tasks	10
Annex C (normative) MTL for in vivo radiobioassay performance testing	11
Annex D (informative) Examples of phantoms	12
Bibliography	13

ISO 23588:2023(E)

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 85, *Nuclear energy, nuclear technology, and radiological protection*, Subcommittee SC 2, *Radiological protection*.

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.

<https://standards.iteh.ai/catalog/standards/sist/aa7c6543-8d93-4a2c-8761-aebe734d80be/sist-en-iso-23588-2024>