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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 19626-2025

Replacing GB/T 19626-2005

**General technical requirements of DNA anti-counterfeiting
technical products**

DNA防伪技术产品通用技术要求

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document replaces GB/T 19626-2005 "General Technical Requirements for DNA Anti-Counterfeiting Technology Products" and is In addition to structural adjustments and editorial changes, the main technical changes are as follows.

a) The terms "genome", "gene", "polymerase chain reaction", "infectivity", "matrix", "DNA sequence uniqueness" and "base pair" have been deleted.

Terms and definitions (see 3.2, 3.3, 3.5, 3.8, 3.10, 3.13 and 3.15 of the 2005 edition);

b) Changed the terms "DNA anti-counterfeiting technology product", "sequence", "acute oral toxicity", "genotoxicity", "primer", "test product", "standard sample" Terms and definitions of "product" and "stability" (see 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 2005 edition 3.4, 3.6, 3.7, 3.9, 3.11, 3.12, 3.14, 3.16);

c) Added the term and definition of "DNA anti-counterfeiting identification feature" (see 3.2);

d) The "anti-counterfeiting strength requirements for DNA anti-counterfeiting technology products" have been changed to the total length of the DNA sequence, the number of DNA sequences with different sequences, and the number of DNA sequences with different sequences.

Four requirements. quantity, uniqueness of identity, and non-transferability (see 5.1, 2005 edition);

e) Deleted "Anti-counterfeiting technology products should have unique identity" (see 5.2 of

the 2005 edition);

f) Modified the "DNA Anti-Counterfeiting Technology Product Identification Performance Indicators" (see 5.2, 5.4 of the 2005 edition);

g) Modified the "Stability requirements for DNA anti-counterfeiting technology products" (see 5.3.1, 5.3 of the 2005 edition);

h) Changed the "Environmental requirements for the use of DNA anti-counterfeiting technology products" (see 5.3.2, 5.6 and 5.10.5 of the 2005 edition);

i) "Technical security and confidentiality" has been changed (see 5.4, 5.7 of the 2005 edition);

j) Deleted "Safe Use Period of DNA Anti-Counterfeiting Technology Products" (see 5.8 of the 2005 edition);

k) Modified the "DNA Testing Requirements" (see 5.5, 5.9 of the 2005 edition);

l) "Test methods" has been changed (see Chapter 6, Chapter 6 of the 2005 edition);

m) "Acceptance Rules" was deleted (see Chapter 7 of the 2005 edition);

n) "Identification, packaging, transportation and storage" has been deleted (see Chapter 8 of the 2005 edition).

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document is proposed and coordinated by the National Anti-Counterfeiting Standardization Technical Committee (SAC/TC218).

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The previous versions of this document and the documents it replaces are as follows.

- First published in 2005 as GB/T 19626-2005;

- This is the first revision.

1 Scope

This document specifies the product classification and technical requirements of DNA anti-counterfeiting technology products and describes the corresponding test methods.

This document applies to the research and development, design, production, inspection, evaluation and acceptance of various types of DNA anti-counterfeiting technology products.

2 Normative references

GB 15193.3

GB 15193.12

GB/T 17002

GB/T 30989

GB/T 34265

GB/T 43635

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1

Anti-counterfeiting technology products that use the unique DNA genetic information of organisms for identification.

3.2

Genetic information such as the DNA double helix structure and specific base sequences serve as the unique identifier of DNA anti-counterfeiting technology products.

3.3 sequence

The primary structure of DNA, formed by bases arranged in a specific order, is used as a DNA anti-counterfeiting identification feature (3.3).

3.4 Acute oral toxicity

Toxic effects that occur in experimental animals in the short term after the test substance is administered orally once or multiple times within 24 hours.

[Source. GB 15193.3-2014, 2.1]

3.5 Genotoxicity

Organisms undergo gene mutations, chromosome structural aberrations, and other DNA or gene changes under the influence of chemicals and other environmental factors.