

ICS 67.050
CCS X 83



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

GB/T 22252-2024

Replacing GB/T 22252-2008

Determination of coenzyme Q10 in health foods

保健食品中辅酶Q10的测定

Issued on: December 31, 2024

Implemented on: July 1, 2025

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

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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 specifies the technical requirements related to food quality. For food safety requirements, please refer to relevant laws, regulations, policies and food safety standards. document.

This document replaces GB/T 22252-2008 "Determination of coenzyme Q10 in health foods". Compared with GB/T 22252-2008, except for the structure In addition to adjustments and editorial changes, the main technical changes are as follows.

- a) The scope of application has been changed (see Chapter 1, Chapter 1 of the 2008 edition);
- b) The principle has been changed (see Chapter 4, Chapter 2 of the 2008 edition);
- c) The preparation of standard solution has been changed (see 5.3, 3.7 and 3.8 of the 2008 edition);
- d) Added sample preparation and sample handling (see 7.1 and 7.2);
- e) The chromatographic reference conditions have been changed (see 7.3, 5.3 of the 2008 edition);
- f) The detection limit and quantification limit have been changed (see Chapter 10, Chapter 1 of the 2008 edition);

g) The chromatogram has been changed (see Appendix A, Chapter 8 of the 2008 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 Technical Committee for Standardization of Special Foods (SAC/TC466).

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

- First published in 2008 as GB/T 22252-2008;
- This is the first revision.

1 Scope

This document describes a method for the determination of coenzyme Q10 in health foods by HPLC.

This document is applicable to the determination of dosage forms such as tablets, hard capsules, soft capsules, granules, powders, oral liquids, and gel candies by high performance liquid chromatography. Coenzyme Q10 in healthy food.

2 Normative references

GB/T 6682

3 Terms and definitions

There are no terms or definitions that require definition in this document.

4 Principle

The analytes in the sample were extracted with isopropanol or anhydrous ethanol, separated by reversed-phase high performance liquid chromatography, and detected by ultraviolet detector.

Qualitative, quantitative by external standard method.

5 Reagents

Unless otherwise specified, only chromatographic grade reagents were used.

5.1 Reagents

5.1.1 Water, GB/T 6682, Grade 1. 5.1.2 Methanol (CH₄O).

5.1.3 Anhydrous ethanol (C₂H₆O).

5.1.4 Isopropyl alcohol (C₃H₈O).

5.2 Standard samples or standard substances

Coenzyme Q10 standard (C₅₉H₉₀O₄, CAS No.. 303-98-0). purity not less than 98%, or nationally certified and certified standards Sample or standard material.

5.3.1 Standard working solution A

5.3.1.1 Coenzyme Q10 standard stock solution A (500 µg/mL). Accurately weigh 25 mg of coenzyme Q10 standard (5.2) (accurate to