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

GB/T 22251-2024

Replacing GB/T 22251-2008

Determination of puerarin in health foods

保健食品中葛根素的测定

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Table of Contents

- 1 Scope
- 2 Normative references
- 3 Terms and definitions
- 4 Principle
- 5 Reagents and Materials
- 5.1 Reagents

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 22251-2008 "Determination of puerarin in health foods". Compared with GB/T 22251-2008, 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 content of the principles has been changed (see Chapter 4, Chapter 2 of the.2008 edition);
- c) The requirements for reagents and materials have been changed (see Chapter 5, Chapter 3 of the.2008 edition);
- d) The requirements for equipment have been changed (see Chapter 6, Chapter 4 of the.2008 edition);
- e) Added the content of sample preparation (see 7.1), changed the sample processing method (see 7.2, 5.1 of the.2008 edition), changed the color Spectrum reference conditions (see 7.3.1, 5.3 of the.2008 edition);
- f) The detection limit and quantification limit of the method have been changed (see Chapter 10, Chapter 1 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). This document was drafted by: Nanjing Food and Drug Administration, China Light Industry Technology Innovation Center Co., Ltd., China Inspection and Quarantine (Beijing) Testing Technology Co., Ltd. Technology Co., Ltd., Jinpai Co., Ltd., Standex Pharmaceutical Technology (Qingdao) Co., Ltd., Infinitus (China) Co., Ltd., China Food Development Fermentation Industry Research Institute Co., Ltd., Hebei Food Inspection Institute, Tianjin University of Science and Technology. The main drafters of this document are. Sun Xiaojie, Zhong Qiding, Wu Zhuoying, Wang Nan, Liu Ming, Li Qiang, Wang Wen, Zhang Cuiying, Huang Meishan, Shi Guohua, Yang Jun, Wang Yanan, Chen Nannan, Guo Xinguang, Wang Yumei, Liu Yang, Zhang Yan, Zhou Jingyu, Gao Guiqin, Yang Feng, Tian Shimin. The previous versions of this document and the documents it replaces are as follows:

---First published in 2008 as GB/T 22251-2008;

---This is the first revision. Determination of Puerarin in Health Food

1 Scope

GB/T 22251-2024 is the Chinese national standard on determination of puerarin in health foods, in the field of food technology. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 31 December 2024 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 July 2025.

Classification: ICS 67.050, CCS X83. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document describes a method for the determination of puerarin in health foods by HPLC. This document applies to puerarin in health foods in dosage forms such as soft capsules, hard capsules, tablets, powders, granules, oral liquids, and alcoholic preparations. Determination.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB/T 6682 Specifications and test methods for water used in analytical laboratories

3 Terms and definitions

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

4 Principle

Puerarin in the sample was extracted with 50% methanol solution, purified by solid phase extraction column if necessary, separated by high performance liquid chromatography, and detected by ultraviolet light. The samples were detected by the external standard method, and the qualitative analysis was based on the retention time.

5 Reagents and Materials

Unless otherwise specified, only analytical grade reagents were used.

5.1 Reagents

5.1.1 Water. Grade 1 water as specified in GB/T 6682.

5.1.2 Methanol (CH_4O). chromatographically pure.

5.1.3 Methanol (CH_4O).

5.1.4 Acetonitrile (CH_3CN). chromatographic grade.

5.1.5 Phosphoric acid (H_3PO_4). high purity.

5.1.6 Petroleum ether. boiling range $30^\circ\text{C}\sim 60^\circ\text{C}$.

5.2 Reagent preparation 5.2.1 0.1% (volume fraction) phosphoric acid solution. measure

1.0 mL of phosphoric acid (5.1.5), dilute to 1000 mL with water, and mix well. 5.2.2 50% (volume fraction) methanol solution. Take 50 mL of methanol (5.1.3), dilute to 100 mL with water, and mix well.