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

**中华人民共和国国家标准**

GB/T 5009.211-2008

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**Determination of folates in foods**

**食品中叶酸的测定**

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(SAC)**

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## Foreword

This standard revised and adopted AOAC 944.12 *Folic acid in vitamin preparations* from AOAC INTERNATIONAL.

Comparison with AOAC 944.12, main differences of this standard are as follows:

- Changed the extraction procedure of plain food sample;
- Extended the application range.

Annex A and Annex B of this standard are informative annex.

This Standard is proposed and under the jurisdiction of the Ministry of Health (MOH) of the People's Republic of China.

This Standard is interpreted by Ministry of Health (MOH) of the People's Republic of China.

Chief draft units of this standard: Nutrition and Food Safety; Chinese Center for Disease Control and Prevention, Liaoning Center for Disease Control and Prevention, Zhejiang Academy of Medical Sciences and Beijing Research Institute of Nutrition.

Chief drafters of this standard: Wang Zhu, Yang Jingming, Zhang Xu, Ma Jinghong, Tang Liang, Li Yuezhong and Wang Kecheng.

# Determination of folates in foods

## 1 Scope

This standard specifies the determination method of folates in foods.

This standard applies to the determination of folates in foods.

The detection limit of this standard: Plain food, when the sample quantity is 5g, the detection limit is 2 $\mu$ g/100 g; as for nutrient supplements, enhancer and premix, when the sample is 1g, the detection limit is 2 $\mu$ g/100 g.

## 2 Normative References

The articles contained in the following documents have become this standard when they are quoted herein. For the dated documents so quoted, all the modifications (excluding corrections) or revisions made thereafter shall not be applicable to this Standard. For the undated documents so quoted, the latest editions shall be applicable to this Standard.

GB/T 6682 Water for analytical laboratory use - Specification and test methods (GB/T 6682-2008, ISO 3696: 1987, MOD)

## 3 Principle

Folate is necessary nutrient for the growth of bacteria; there is a liner relationship between bacteria growth response and folate content in medium under certain control conditions. Determine the turbidity after the multiplication of bacteria in sample solution in turbidimetry method; calculate the folate content by comparing with the standard curve.

## 4 Reagents

Unless otherwise stated, reagents used are analytically pure and experiment water is grade II specified in GB/T 6682.

**4.1** Methylbenzene (C<sub>7</sub>H<sub>8</sub>).

**4.2** Sodium phosphate (Na<sub>3</sub>PO<sub>4</sub> • 12H<sub>2</sub>O).

**4.3** Disodium hydrogen phosphate (Na<sub>2</sub>HPO<sub>4</sub> • 7H<sub>2</sub>O).

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