



NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC  
OF CHINA

**中华人民共和国国家标准**

GB 5413.19-2010

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**National food safety standard**  
**Determination of free biotin in foods for infants and**  
**young children, milk and milk products**

**食品安全国家标准**

**婴幼儿食品和乳品中游离生物素的测定**

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**Issued by the Ministry of Health of P.R of China**

## Preface

This standard has substituted GB/T 5413.19-1997 Determination of Free Biotin Content in Formulated Foods for Infants and Young Children and Milk Powder.

The appendix A is the normative appendix.

Previous standard editions substituted by this edition are as follows:

-- GB 5413 – 1985; GB/T 5413.19 – 1997

# National food safety standard

## Determination of free biotin in foods for infants and young children, milk and milk products

### 1 Scope

This Standard specifies the method for the determination of free biotin in foods for infants and young children, milk and milk products.

This standard applies to determination of free biotin content in formulated food for infants and young children and milk powder.

### 2 Normative reference

The following normative documents contain provision which, through reference in this text, constitute provisions of This Standard. For dated reference, subsequent amendments to, or revisions of, (excluding mistakes) any of these publications do not apply. However, parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent edition of the normative document indicated below. For undated references, the latest edition of the normative document referred to applies.

### 3 Principle

The method is based on growth of a biotin-dependent bacterium *Lactobacillus planetarum* in a medium including all essential nutrients with the exception of biotin. Biotin is the limiting factor for growth and can thus be determined quantitatively by comparing sample extracts with known standard concentrations. The addition of a biotin standard in specified increasing concentrations gives a growth response by this organism that can be measured titrimetrically or turbidimetrically.

### 4 Reagents, strains and culture medium

Unless otherwise specified, the reagents used in the method are the ones of analytically pure, and

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