

ICS 67.120
CCS X04



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

GB/T 21981-2008

**Determination of hormone multiresidues in foodstuffs of animal
origin - LC-MS/MS method**

动物源食品中激素多残留检测方法 液相色谱-质谱/质谱法

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Quarantine of the People's Republic of China;
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Foreword

The Standard Appendix A and Appendix B for the normative appendix, Appendix C, Appendix D, Appendix E, Appendix F and Appendix G are informative appendices. This standard was proposed by the State Administration of Quality Supervision Inspection and Quarantine of People's Republic of China. This standard by the National Certification and Accreditation Administration of People's Republic of China. This standard was drafted. Beijing Center for Disease Control and Prevention, Chinese Center for Disease Control Nutrition and Food Safety, Chinese test Quarantine Science Research Institute. The main drafters of this standard. Shao Bing, Yang Yi, Zhang Jing, Wu Yongning, Chu Xiaogang. Animal Food hormone multi-residue methods Liquid chromatography - mass spectrometry/mass spectrometry

1 Scope

GB/T 21981-2008 is the Chinese national standard on determination of hormone multiresidues in foodstuffs of animal origin - lc-ms/ms method, 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 6 June 2008 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 3 July 2008. Classification: ICS 67.120, CCS X04. 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 standard specifies the hormone residues in food of animal origin amount of liquid chromatography - mass spectrometry/mass spectrometry. This standard applies to meat, liver, eggs, milk, beef, chicken and shrimp and other foods of animal origin 50 kinds of hormones (see Appendix A) residues Quantitative determination and confirmation.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 6682 analytical laboratory use specifications and test methods (GB/T 6682-1992, neq ISO 3696. 1987)

3 Method summary

A sample of the target compound homogenized, digested with methanol - aqueous extraction, purification by solid phase extraction and liquid chromatography - mass spectrometry/mass Spectrometer, internal standard.

4 Reagents and materials

Except where noted, all reagents used in this standard HPLC grade water as a water GB/T 6682 regulations.

4.2 dichloromethane.

4.3 acetonitrile.

4.4 formic acid.

4.5 acetic acid. AR.

4.6 sodium acetate (NaAC · 4H₂O). AR. 4.7 beta- glucuronidase/aryl sulfatase solution (beta-glucuronidase/arylsulfatase). 4.5U/mLbeta- glucuronide Enzymes, 14U/mL aryl sulfatase.

4.8 acetic acid - sodium acetate buffer solution (pH5.2). Weigh 43.0g of sodium acetate (NaAC · 4H₂O), was added 22mL of acetic acid with water-soluble Solutions and set the volume to 1000mL, adjusted to pH

5.2 with acetic acid.

4.9 methanol - water (1 + 1, volume ratio). Take 50mL of methanol and 50mL of water.

4.10 methylene chloride - methanol solution (7 + 3, volume ratio). Take 70mL of dichloromethane and methanol mixed 30mL. 4.11 0.1% formic acid. precise amount of formic acid 1mL diluted with water to 1000mL.

4.12 Standard. norepinephrine androstenedione, trenbolone, boldenone, fluoxymesterone, nandrolone, androstenedione, testosterone, DHEA Pula, methyltestosterone, testosterone

iso Ketones, DHEA, stanozolol, 17beta- hydroxy-androstan-3-one, the United States and testosterone, danazol, Tomio nandrolone, hydroxymethyl androstenedione, Methandriol, estradiol, three Alcohol, estrone, ethinyl estradiol, estrone hexane, diethylstilbestrol, dienestrol, norethindrone, 21alpha- hydroxy progesterone, 17alpha- hydroxy progesterone, levonorgestrel, Medroxyprogesterone acetate, megestrol acetate, progesterone, medroxyprogesterone acetate, chlormadinone, triamcinolone, aldosterone, prednisone, cortisone, hydrogen Cortisone, prednisolone, Flumetasone, dexamethasone, fludrocortisone acetate, methyl prednisolone, beclomethasone, triamcinolone acetonide, fluocinolone, Flumetholon, budesonide, clobetasol propionate, purity greater than 97%. English substance name and CAS number in Appendix A.