



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

GB/T 21174-2007

**Determination of beta-Lactams residues in animal derived food
- Radio-receptor assay method**

动物源性食品中 β -内酰胺类药物残留测定方法 放射受体分析法

(English Translation)

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Table of Contents

- 1 Scope
- 2 Normative references
- 3 Sample preparation and preservation
- 4 Determination

1 Scope

This standard specifies the sample preparation and analysis methods radioreceptor Meat and Seafood within beta- lactam drug residues determination.

This standard applies to meat and fish in the inner beta- lactam drug residue screening assays.

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)

3.1 Sample Preparation

Was removed from the original sample portion representative sample should be as fat removed. The edible part of the organization into a high-speed machines are broken

Quality, thoroughly mixed, and dividing by quartering a sample of not less than 500g. Load a clean container and labeled markers.

Sample number of bacteria in the sample preparation procedure should prevent sample contamination or the occurrence of the change of residue content, for the determination not exceed

106/g.

3.2 Sample preservation

The following sample at -18 °C preservation, fresh or frozen tissue samples can be stored 72h at 2 °C ~ 6 °C.

4.1 Principle

Based assay is the continuity of the receptor immunoreactivity in samples of residual beta-lactams and [

¹⁴C] labeled penicillin G, respectively

Specific receptor binding of microbial cells. The sample was measured by scintillation counting of [¹⁴C] Content count value (cpm), the count value with a liquid

And sample beta-lactams residues in inverse proportion.

4.2 Reagents and materials

Unless otherwise indicated, the reagents used were of analytical grade water as a water GB/T 6682 regulations.

4.2.1 CharmII organization beta-lactams assay kit

1).

1) CharmII organization beta-lactams assay kit and CharmII liquid scintillation counter is provided by the company's products CharmScience

Trade names. This information is given for the convenience of users of this standard does not imply endorsement of the product. If other equivalent products with the same

Effect, you can use these equivalent products.

4.2.1.1 negative control concentrated powder

Store at 2 °C ~ 6 °C. When dissolved in water by using 10mL to prepare a negative tissue fluid. Negative group

Tissue fluid can be stored at 2 °C ~ 6 °C in 48h. Such a long time, can be stored frozen at -15 °C the following two months, the use of which thawed solution

After freeze solution can be stored at 2 °C ~ 6 °C 24h.

4.2.1.2 MSU variety of antibiotics Standard

stored at 2 °C ~ 6 °C. Dissolved in 10mL of water when used to prepare a variety of anti-MSU Standard antibiotic solution (penicillin G wherein the concentration of 1000μg/L).

MSU variety of antibiotics preservation method with standard solutions 4.2.1.1.

4.2.1.3 MSU extraction buffer concentrate powder

dissolving when using 1000mL of water, formulated as MSU extraction buffer, in