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**Determination of gentamycin in feeds-Liquid
chromatography-tandem mass spectrometry**

饲料中庆大霉素的测定 液相色谱-串联质谱法

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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 is required.

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 was proposed and coordinated by the National Feed Industry Standardization Technical Committee (SAC/TC 76).

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Determination of Gentamycin in Feed Liquid chromatography-tandem mass spectrometry

1 Scope

This document describes the principle, reagents or materials, equipment, sample preparation and analysis of gentamicin in feed by liquid chromatography-tandem mass spectrometry.

Products, test steps, and test data processing.

This document applies to gentamicin (in the form of gentamicin C1, Determination of

gentamicin C1a, gentamicin C2 and gentamicin C2a).

The detection limit of gentamicin in this document is 0.030 mg/kg, and the quantification limit is 0.100 mg/kg.

2 Normative references

GB/T 6682

GB/T 20195

3 Terms and definitions

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

4 Principle

Gentamycin in the sample was extracted with 5% trichloroacetic acid solution, purified by mixed cation exchange solid phase extraction column, and analyzed by liquid chromatography-tandem mass spectrometry.

The samples were determined by mass spectrometry, calibrated by matrix-matched standard curve, and quantified by external standard method.

5 Reagents or materials

Unless otherwise specified, only analytical grade reagents were used.

5.1 Water. GB/T 6682, Grade 1.

5.2 Ammonium formate. chromatographic grade.

5.3 Formic acid. chromatographic grade.

5.4 Methanol. chromatographic grade.

5.5 Acetonitrile. chromatographic grade.

5.6 0.1% formic acid solution. Take 1.0 mL of formic acid (5.3), dilute to 1 000 mL with water, and mix well.

5.7 0.1% formic acid acetonitrile solution. Take 1.0 mL of formic acid (5.3), dilute to 1 000 mL with acetonitrile, and mix well.

5.8 10% ammonia methanol solution. Take 10 mL of ammonia water, dilute it to 100 mL with methanol (5.4), and mix well.

5.9 1% heptafluorobutyric anhydride formic acid solution. Take 0.5 mL of heptafluorobutyric anhydride and dilute it to 50 mL with 0.1% formic acid solution (5.6) and mix well.

Prepare immediately before use.

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