

ICS 65.120
CCS B 46



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

GB/T 43714-2024

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

饲料中泰拉霉素的测定 液相色谱-串联质谱法

Issued on: March 15, 2024

Implemented on: October 1, 2024

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

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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.

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/TC76).

This document was drafted by Zhejiang Zhengming Testing Co., Ltd. and Ningbo Agricultural Product Quality Testing Center.

The main drafters of this document are: Wu Yinliang, Fu Yan, Xu Feng, Zhu Yong, Ma Yan, Ying Yongfei, Wang Quansheng, Wu Shixue, Huang Ling, and Shi Xizhi.

Determination of Tulathromycin in Feed Liquid chromatography-tandem mass spectrometry

1 Scope

This document describes a method for the determination of tulathromycin in feed by liquid chromatography-tandem mass spectrometry.

This document applies to the determination of tulathromycin in compound feeds, concentrated feeds, concentrate supplements and additive premixes.

The detection limit of this document is 10.0µg/kg and the quantification limit is 20.0µg/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

The tulathromycin (tulathromycin A and tulathromycin B) in the sample was extracted with formic acid methanol solution, purified by solid phase extraction column, and then purified by liquid. The results of HPLC-MS/MS showed that tulathromycin A and tulathromycin B responded in the same manner.

Solution calibration, external standard method for quantification.

5 Reagents or materials

Unless otherwise specified, only analytical grade reagents were used.

5.1 Water. GB/T 6682, Grade 1.

5.2 Formic acid. chromatographic grade.

5.3 Methanol. chromatographic grade.

5.4 Acetonitrile. chromatographic grade.

5.5 Formic acid methanol solution (0.25%, volume fraction). Pipette 2.5 mL of formic acid (5.2), dilute to 1000 mL with methanol (5.3), and mix well.

5.6 Formic acid solution (0.1%, volume fraction). Pipette 1 mL of formic acid (5.2), dilute to 1000 mL with water, and mix well.

5.7 Methanol-formic acid solution. Pipette 90 mL of 0.1% formic acid solution (5.6) and 10 mL of methanol (5.3) and mix well.

5.8 Standard stock solution (1 mg/mL). weigh 10 mg (accurate) of tulathromycin A (CAS. 217500-96-4, purity not less than 97.0%) To 0.01 mg) in a 10 mL volumetric flask, dissolve with methanol (5.3) and make up to volume, mix well. Store below -18°C, valid for 6 months.

5.9 Standard intermediate solution (10 µg/mL). Accurately transfer 1 mL of the standard stock solution (5.8) into a 100 mL volumetric flask and add methanol (5.3)