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**Determination of methyl syringate in rape honey-High
performance liquid chromatography method**

油菜蜂蜜中丁香酸甲酯的测定 高效液相色谱法

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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.

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Determination of Methyl Syringate in Rape Honey High performance liquid chromatography

1 Scope

This document describes a HPLC method for the determination of methyl syringate in rapeseed honey.

This document is applicable to the determination of methyl syringate content in rapeseed honey.

2 Normative references

GB/T 6682

3 Terms and definitions

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

4 Principle

Methyl syringate in rape honey samples was purified and enriched by weak anion exchange solid phase extraction column and then separated by C18 high performance liquid chromatography column.

The product was detected by UV or diode array detector (maximum absorption wavelength was 276 nm) and quantified by external standard peak area method.

5 Reagents and Materials

Unless otherwise specified, all reagents were of analytical grade and water was grade 1 water as specified in GB/T 6682.

5.1 Acetonitrile (chromatographic grade).

5.2 Ammonia water. concentration is 25% to 28% (mass fraction).

5.3 Methyl syringate (C₁₀H₁₂O₅) standard. CAS No. 88473575, purity not less than 98%, or use standard substance/standard sample.

5.4 Methyl syringate standard stock solution (1 000 mg/L). Accurately weigh 0.100 0 g ± 0.000 1 g of methyl syringate standard (5.3) and Dissolve the solution in acetonitrile (5.1) in a 25 mL beaker, transfer to a 100 mL volumetric flask, dilute to the mark, and shake well to obtain 1 000 mg/L Methyl syringate standard stock solution. Store at 4 °C away from light, valid for 6 months.

5.5 Methyl syringate standard intermediate solution (100 mg/L). Accurately pipette 1.0 mL of 1 000 mg/L methyl syringate standard stock solution (5.4) In a 10 mL volumetric flask, dilute with water and make up to volume, shake well to obtain a 100 mg/L methyl syringate standard intermediate solution. Place at 4 °C Keep away from light, valid for 3 months.

5.6 Methyl syringate standard working solution. Accurately pipette 0.1 mL, 0.2 mL, 0.4 mL, 1.0 mL, 4.0 mL, and 10 mL of syringate, respectively.

The acid methyl ester standard intermediate solution (5.5) was added to a 10 mL volumetric flask, diluted with water and fixed to volume, and shaken to obtain a series of mass concentrations.

1 mg/L, 2 mg/L, 4 mg/L, 10 mg/L, 20 mg/L, 40 mg/L, ready for use.

The methyl syringate standard intermediate solution (5.5) together constitutes the methyl syringate standard working solution, which is used to prepare the standard curve (7.4.2).