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

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**Determination of phloridzin in apple and apple products-High
performance liquid chromatography method**

苹果及苹果制品中根皮苷的检测方法 高效液相色谱法

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5.8 Phlorizin series standard working solution, pipette 0.1mL, 0.25mL, 0.5mL, 1.0mL,

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.

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Detection method of phlorizin in apple and apple products High performance liquid chromatography

1 Scope

This document describes a method for the determination of phlorizin in apples and apple products using HPLC.

This document is applicable to the determination of phlorizin in apples and apple products.

2 Normative references

GB/T 6379.2

GB/T 6682

3 Terms and definitions

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

4 Principle

The samples were extracted with ethanol and water (80%), purified with C18 adsorbent, separated by liquid chromatography, and detected by UV detector or diode array.

The samples were detected by the external standard method, and the qualitative analysis was based on the retention time.

5 Reagents and Materials

Unless otherwise specified, only analytical grade reagents were used.

5.1 Water. GB/T 6682, Grade 1.

5.2 Ascorbic acid (C₆H₈O₆, CAS No.. 50-81-7).

5.3 Acetonitrile (C₂H₃N, CAS No.. 75-05-8). chromatographically pure.

5.4 Ethanol aqueous solution (80%). Use a measuring cylinder to measure 80 mL of ethanol (C₂H₆O, CAS No.. 64-17-5) and 20 mL of water into a reagent bottle. Shake well.

5.5 Trifluoroacetic acid aqueous solution (0.01%). Measure 1000 mL of water into the reagent bottle with a measuring cylinder, and use a pipette to draw 0.1 mL of chromatographically pure trifluoroacetic acid.

Add fluoroacetic acid (C₂H₃FO₂, CAS No.. 76-05-1) into the reagent bottle and shake well.

5.6 Standard substance. Phloridzin (C₂₁H₂₄O₁₀, CAS. 60-81-1), content $\geq$ 98.0%.

5.7 Standard stock solution (1.0 mg/mL). Accurately weigh 25 mg (accurate to 0.0001 g) of phlorizin standard into a 25 mL volumetric flask.

Dissolve in acetonitrile (5.3) and dilute to the mark, shake well, and the product is obtained. Store in a refrigerator at 0°C~4°C away from light. The shelf life is 30 days.