



Test report

测试报告

Sample Information			
样品信息			
Sample Name 样品名称	Aminophenazone, benzoic acid, sorbic acid, saccharin and dehydroacetic acid 安赛蜜、苯甲酸、山梨酸、糖精钠 和脱氢乙酸	Sample properties 样品性状	Colorless transparent liquid无色透明液体
Date of receipt 收样日期	2025/09/04	During testing 测试期间	2025/09/04 ~ 09/09
Test the ingredients and structural formula			
测试成分及结构式			
Aminophenazone, benzoic acid, sorbic acid, saccharin and dehydroacetic acid 安赛蜜、苯甲酸、山梨酸、糖精钠和脱氢乙酸			
Experimental Requirements			
实验要求			
Separation meets requirements. 分离满足要求。			
Reference Method			
参考方法			
GB5009.28-2016			
Reagent information			
试剂信息			
Reagent Name 试剂名称	Grade 级别	Brand 品牌	
乙酸铵	AR	阿拉丁	
乙酸	AR	国药	

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甲醇	HPLC	月旭
Instrument Information 仪器信息		
Test instruments 测试仪器	Instrument Model 仪器型号	
High Performance liquid chromatograph 高效液相色谱仪	Thermo Scientific U3000	

1. Test process:

试验过程

1.1. Chromatographic conditions:

色谱条件

Chromatographic column: 色谱柱	Welchrom® PSV C18 (4.6×250mm,5μm)
Mobile phase: 流动相	20mM ammonium acetate solution (adjusted to pH 6.70 with acetic acid)-methanol = 93:7 20mM 乙酸铵溶液(用乙酸调 pH 为 6.70) - 甲醇 = 93:7
Flow rate: 流速	1 mL/min
Injection volume: 进样量	5μL
Column temperature: 柱温	30 °C
Detector: 检测器	UV
Detection wavelength: 检测波长	230nm
Notes 注意事项	/

1.2. Solution preparation (溶液配制)

1.2.1. Preparation of mobile phase (流动相配制):

20mM ammonium acetate solution: 1.54g of ammonium acetate was weighed, 1000ml of water was added to dissolve it, and the pH value was adjusted to 6.7 with acetic acid.

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20mM乙酸铵溶液: 称取乙酸铵1.54g, 加水1000ml使溶解, 用乙酸调节pH值至6.7。

1.2.2. Test solution (供试品溶液):

We accurately weighed approximately 2 g of the sample and transferred it to a 50 mL screw-capped centrifuge tube. After adding about 25 mL of water and vortex-mixing, the sample was subjected to 50°C water bath ultrasonication for 20 minutes. Following cooling to room temperature, 2 mL of potassium ferrocyanide solution and 2 mL of zinc acetate solution were added. The mixture was thoroughly mixed and centrifuged at 8000 r/min for 5 minutes. The aqueous phase was then transferred to a 50 mL volumetric flask. Adding 20 mL of water to the residue, vortex-mixing followed by 5 minutes of ultrasonication was performed, after which the flask was centrifuged at 8000 r/min for 5 minutes. The aqueous phase was again transferred to the same 50 mL volumetric flask and made up to the mark with water. A portion of the supernatant was filtered through a 0.22 μ m membrane for liquid chromatography analysis..

准确称取约2 g试样于50 mL具塞离心管中, 加入约25 mL水, 涡旋混匀, 于 50 °C 水浴超声处理20 min, 冷却至室温后加入 2 mL 亚铁氰化钾溶液和 2 mL 乙酸锌溶液, 混匀, 于 8000 r/min 离心5 min。将水相转移至 50 mL 容量瓶中, 残渣中再加入 20 mL 水, 涡旋混匀后超声 5 min, 于 8000 r/min 离心5 min。将水相转移至同一50 mL 容量瓶中, 用水定容至刻度, 混匀。取适量上清液经 0.22 μ m 滤膜过滤, 待液相色谱测定。

1.2.3. Reference solution (对照溶液):

Mix of asemit, benzoic acid, sorbic acid, and saccharin sodium: provided by the customer at a concentration of 100 μ g/mL.

安赛蜜、苯甲酸、山梨酸、糖精钠混标: 客户提供, 浓度为 100 μ g/mL。

Dehydroacetic acid: supplied by the customer, concentration of 100 μ g/mL

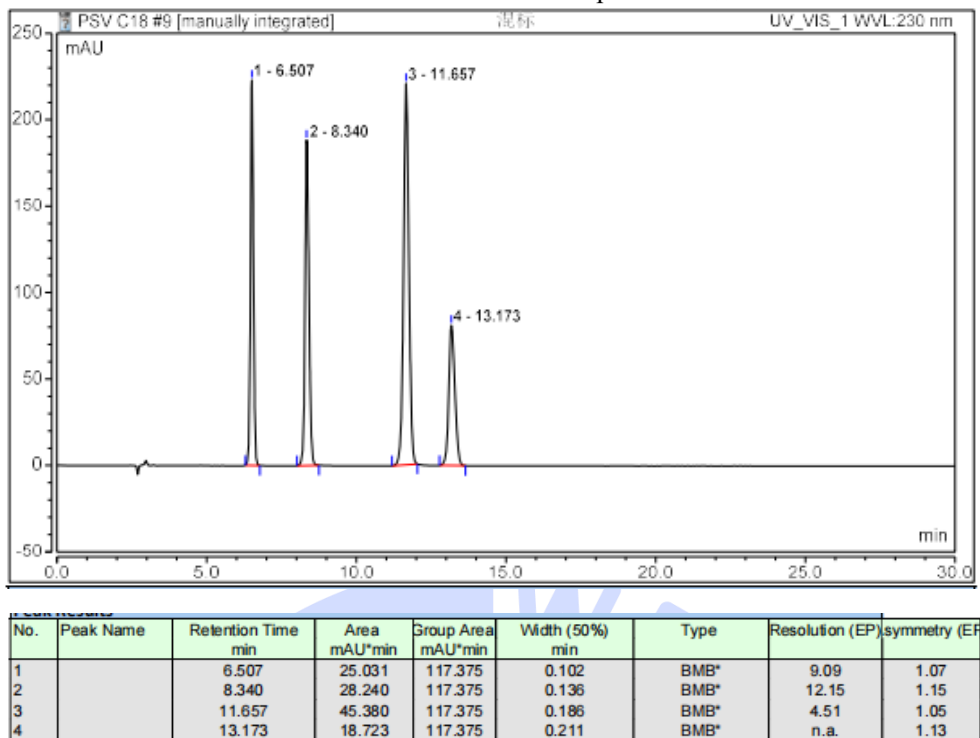
脱氢乙酸: 客户提供, 浓度为 100 μ g/mL

2. Chromatogram and data (谱图和数据)

(1) Reference solution (对照溶液图)

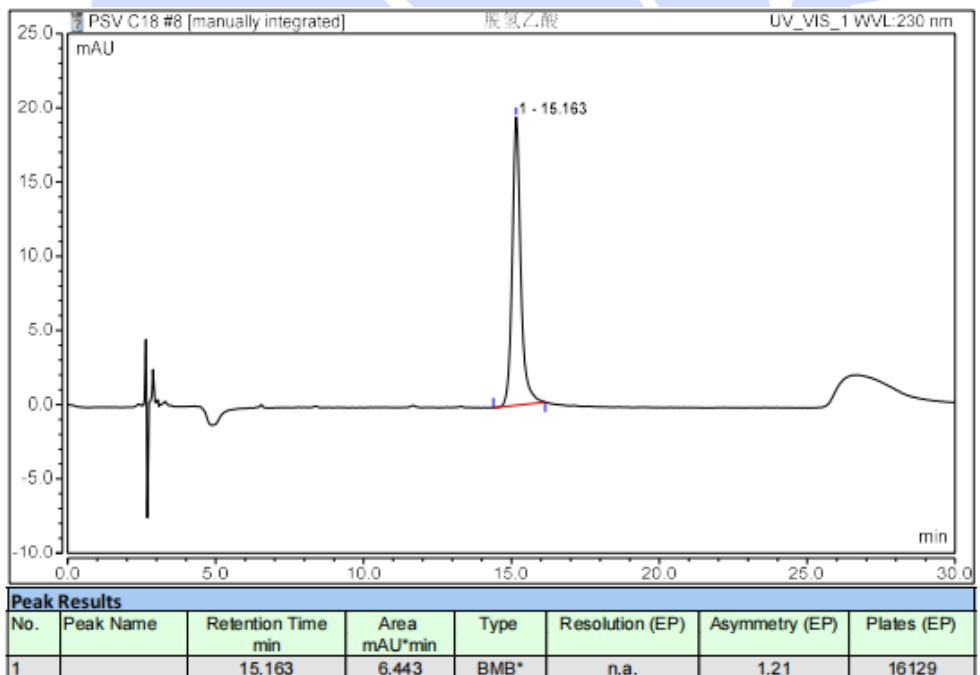
Spectra of mixtures of amines, benzoic acid, sorbic acid and sodium saccharin.

安赛蜜、苯甲酸、山梨酸、糖精钠混标溶液谱图



Dehydroacetic acid solution diagram

脱氢乙酸溶液图



(2) Test solution (供试品溶液图)

Sample 39

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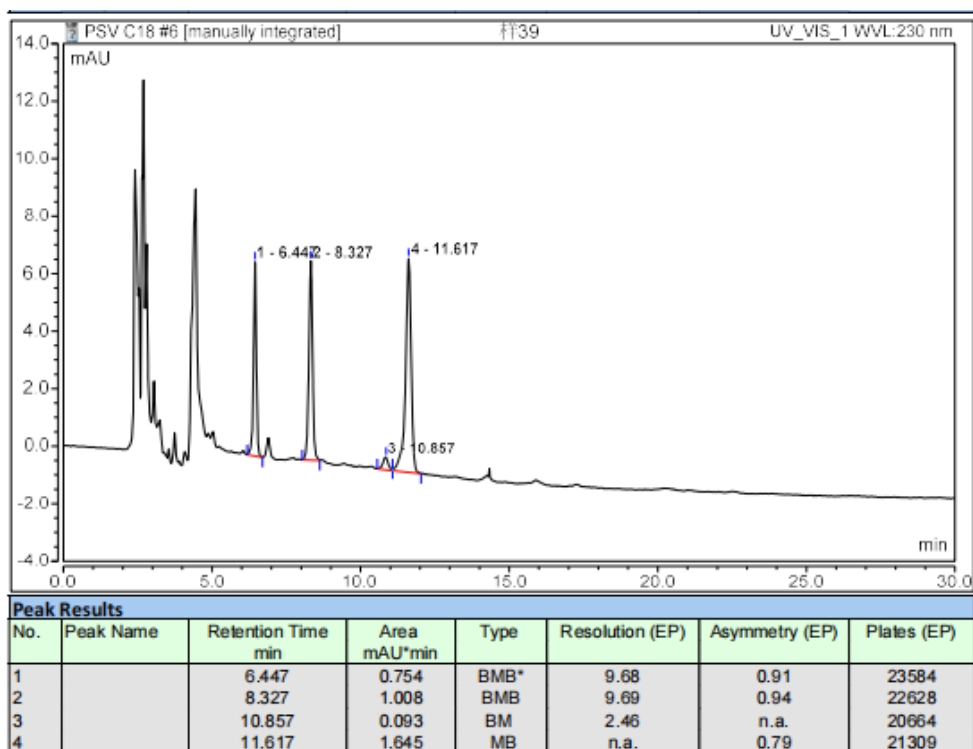
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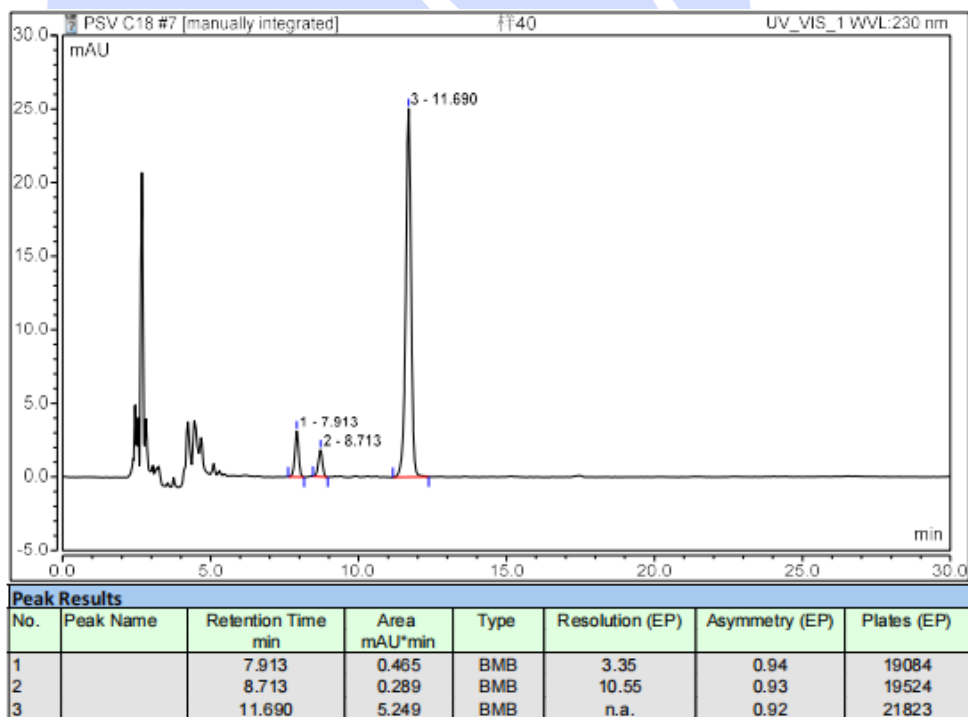


样39



Sample 40

样40



(3) 效果不好的柱子对照谱图

Spectra of mixtures of amines, benzoic acid, sorbic acid and sodium saccharin.

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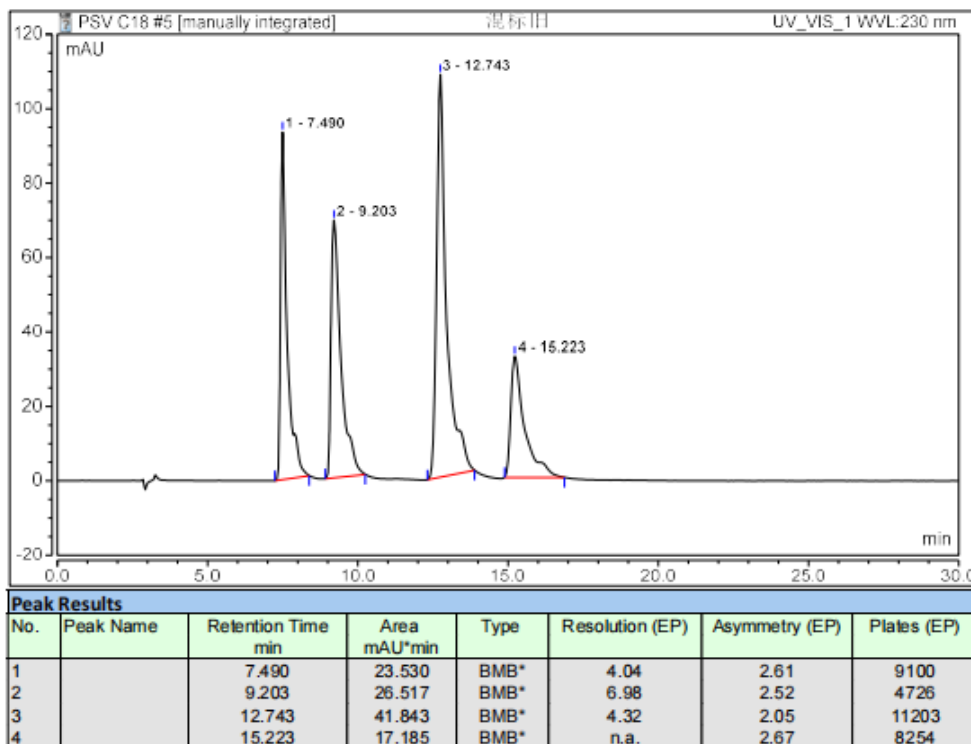
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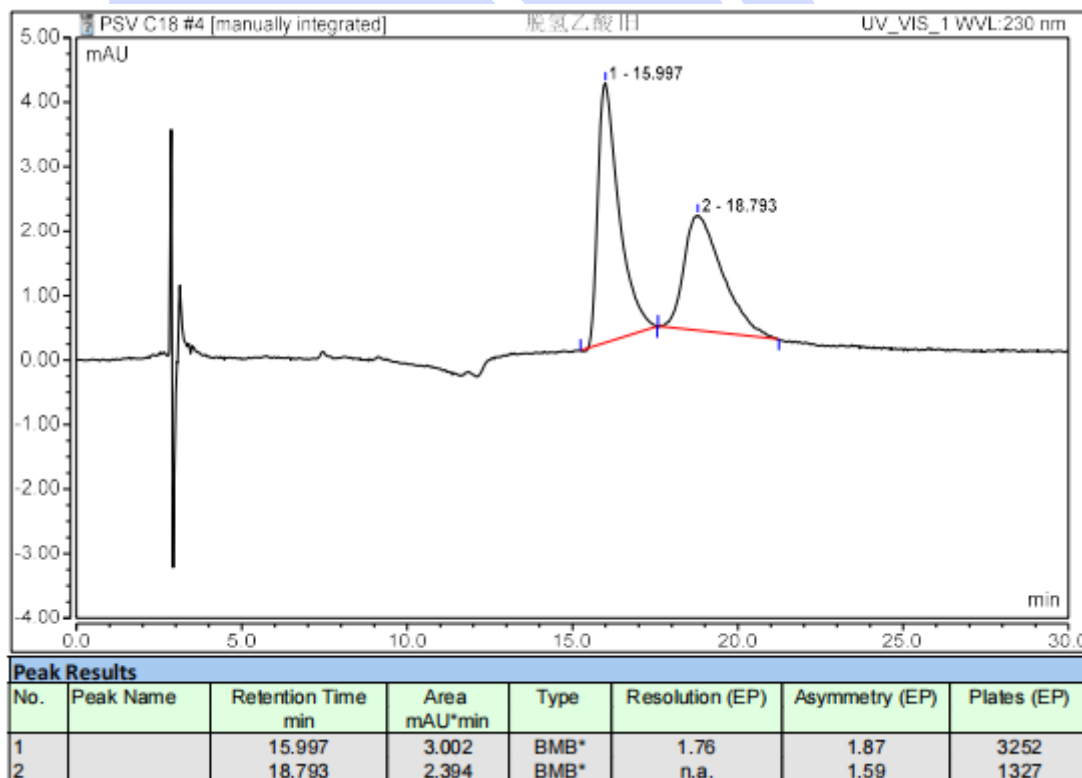


安赛蜜、苯甲酸、山梨酸、糖精钠混标溶液谱图



Dehydroacetic acid solution diagram

脱氢乙酸溶液图



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3. Conclusion (结论)

Using Welch[®] PSV C18 (4.6×250mm, 5μm), the detection requirements can be met under these chromatographic conditions.

使用月旭 Welch[®] PSV C18 (4.6×250mm, 5μm), 在此色谱条件下, 满足检测需求。



Report signature (报告签字)

Tester(测试): 马琳琳

Date (日期):

Reviewer(审核):

Date (日期):

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