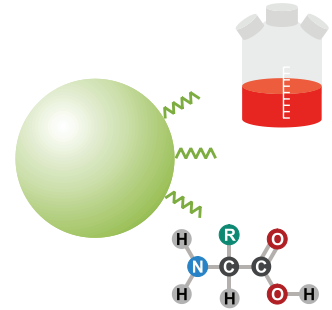


氨基酸分析

按照一套升级和改进方案，AdvanceBio AAA 高效色谱柱可以分离各种氨基酸。在蛋白质生产过程中，对细胞培养基进行监测，确保维持正确的营养物质平衡和水平以表达产物蛋白质。氨基酸是原料的关键成分，因此必须在生产过程中进行监测和调整。反相色谱是用于氨基酸分析的主要技术。在较短的 75 mm 色谱柱上，进样之间的总分析时间为 14 分钟（分析时间 9 分钟）；在 150 mm 色谱柱上，进样之间的总分析时间为 24 分钟（分析时间 18 分钟）。使用任何安捷伦液相色谱系统，采用 OPA 和 FMOC 衍生化填料执行全自动化分析程序，均可获得良好的灵敏度（用二极管阵列或荧光检测器可达 5–50 pmol）和可靠性。



AdvanceBio 氨基酸分析色谱柱

**色谱柱: AdvanceBio 氨基酸分析色谱柱
655950-802
4.6 × 100 mm, 2.7 μm**

流动相: A = 10 mmol/L Na₂HPO₄ 和 10 mmol/L Na₂B₄O₇, pH 8.2
B = 乙腈:甲醇:水 (45:45:10, v:v:v)

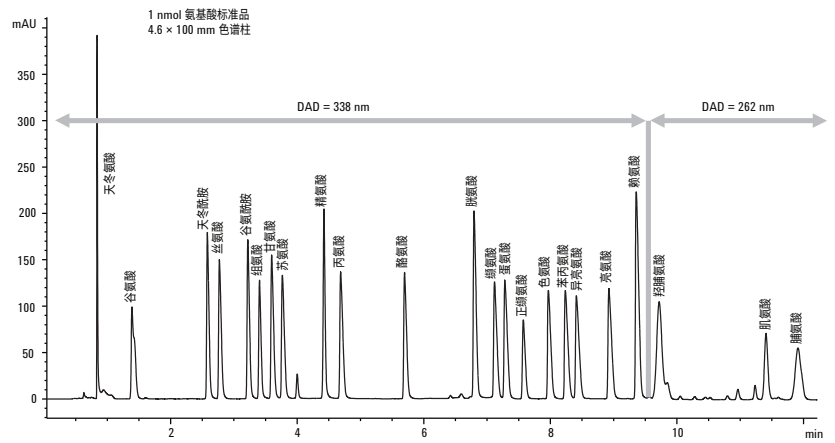
流速: 1.5 mL/min

进样量: 3 μL

梯度:	时间	%B
	0	2
	0.35	2
	13.4	57
	13.5	100
	15.7	100
	15.8	2
	18	停止

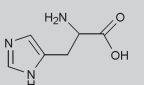
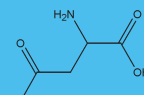
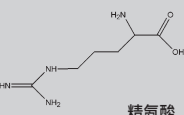
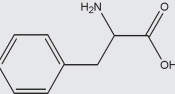
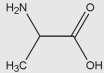
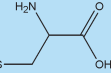

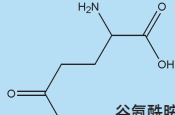
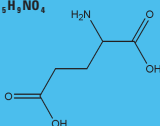
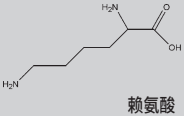
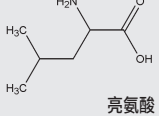
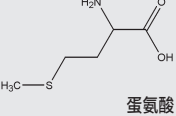
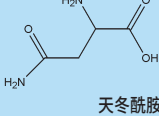
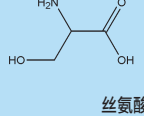
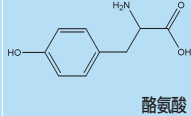
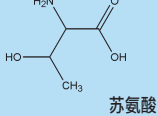
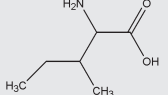
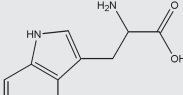
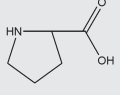
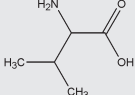
柱温: 40 °C

检测器: UV, 338 和 262 nm



使用 AdvanceBio 氨基酸分析色谱柱分离 1 nmol 氨基酸标准品

氨基酸

<p>H 155.16 137.14 $C_6H_9N_3O_2$</p> <p>His</p>  <p>组氨酸</p>			<p>D 133.10 115.09 $C_4H_7NO_4$</p> <p>Asp</p>  <p>天冬氨酸</p>			
<p>R 174.20 156.19 $C_6H_{14}N_4O_2$</p> <p>Arg</p>  <p>精氨酸</p>	<p>F 165.19 147.18 $C_9H_{11}NO_2$</p> <p>Phe</p>  <p>苯丙氨酸</p>	<p>A 89.09 71.08 $C_3H_7NO_2$</p> <p>Ala</p>  <p>丙氨酸</p>	<p>C 121.16 103.14 $C_3H_7NO_2S$</p> <p>Cys</p>  <p>半胱氨酸</p>	<p>G 75.07 57.05 $C_2H_5NO_2$</p> <p>Gly</p>  <p>甘氨酸</p>	<p>Q 146.15 128.13 $C_5H_9N_2O_3$</p> <p>Gln</p>  <p>谷氨酰胺</p>	<p>E 147.13 129.11 $C_5H_9NO_4$</p> <p>Glu</p>  <p>谷氨酸</p>
<p>K 146.19 128.17 $C_6H_{14}N_2O_2$</p> <p>Lys</p>  <p>赖氨酸</p>	<p>L 131.17 113.16 $C_6H_{13}NO_2$</p> <p>Leu</p>  <p>亮氨酸</p>	<p>M 149.21 131.20 $C_5H_{11}NO_2S$</p> <p>Met</p>  <p>蛋氨酸</p>	<p>N 132.12 114.10 $C_4H_8N_2O_3$</p> <p>Asn</p>  <p>天冬酰胺</p>	<p>S 105.09 87.08 $C_3H_7NO_3$</p> <p>Ser</p>  <p>丝氨酸</p>	<p>Y 181.19 163.17 $C_9H_9NO_3$</p> <p>Tyr</p>  <p>酪氨酸</p>	<p>T 119.12 101.10 $C_4H_9NO_3$</p> <p>Thr</p>  <p>苏氨酸</p>
<p>I 131.18 113.16 $C_6H_{13}NO_2$</p> <p>Ile</p> 	<p>W 204.23 186.21 $C_{11}H_{12}N_2O_2$</p> <p>Trp</p> 	<p>P 115.13 97.12 $C_5H_9NO_2$</p> <p>Pro</p> 	<p>V 117.15 99.13 $C_5H_{11}NO_2$</p> <p>Val</p> 			

- 碱性
- 非极性 (疏水性)
- 极性, 不带电荷
- 酸性

