

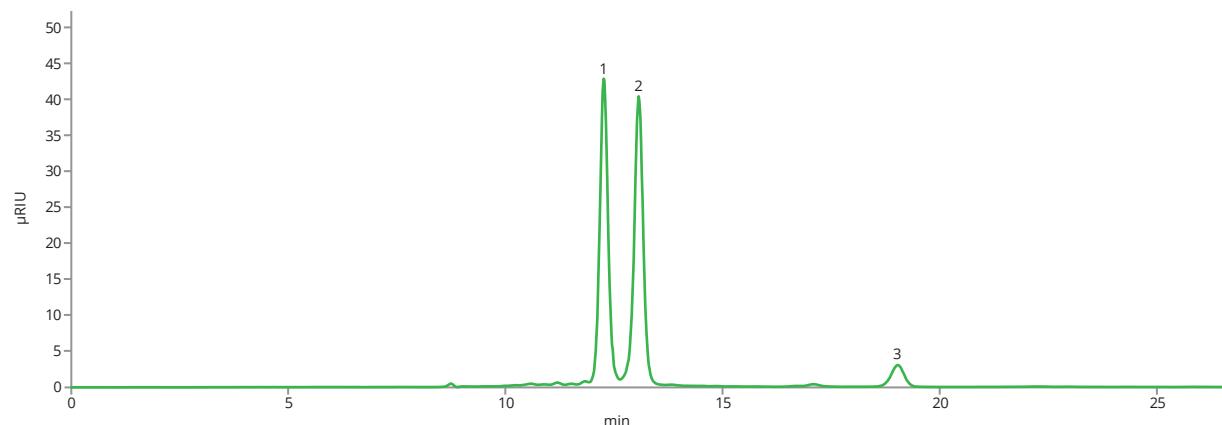
Sugars and Organic acids in Balsamic vinegar

Balsamic vinegar is celebrated for its rich flavor, which is the result of a delicate balance between sugars and organic acids. Analyzing these components is essential for producers aiming to maintain quality and create distinct flavor profiles.

Sugars, primarily glucose and fructose, contribute sweetness, while organic acids, notably acetic acid, provide the characteristic tang. Understanding the levels of these compounds helps ensure consistency across batches, enhances the overall taste, and allows for adjustments that create a harmonious balance.

Additionally, rigorous analysis supports quality control and regulatory compliance. Many regions impose strict standards on balsamic vinegar production, and regular testing ensures adherence to these guidelines, fostering consumer confidence in the product.

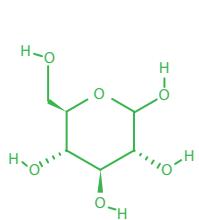
In summary, the analysis of sugars and organic acids in balsamic vinegar is crucial for crafting high-quality products that delight consumers and uphold authenticity in this beloved condiment.



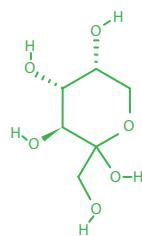
Balsamic vinegar on ASTRA® Sugar H(S) column

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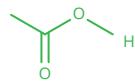
| | |
|-------------------------|---|
| Column | ASTRA® Sugar H(S), 10.0 µm |
| Dimensions | 300 mm × 8.0 mm |
| Part number | AST-5927-VN80 |
| Mobile phase | 0.1% H ₂ SO ₄ in H ₂ O Isocratic elution |
| Flow rate | 0.5 mL/min |
| Temperature | 80 °C |
| Detection | RID @55 °C |
| Injection volume | 0.3 µL |
| Analytes | 1. Glucose , CAS number 50-99-7 2. Fructose , CAS number 57-48-7 3. Acetic acid , CAS number 64-19-7 |



Glucose



Fructose



Acetic acid