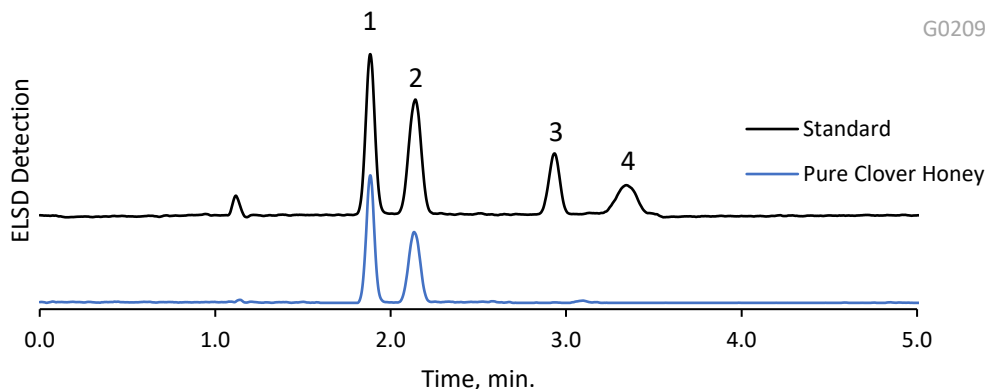


Analysis of Sugars in Pure Honey using HALO® Penta-HILIC



PEAK IDENTITIES:

1. D-(-) Fructose
2. D-(+) Glucose
3. Sucrose
4. D-(+) Maltose

TEST CONDITIONS:

Column: HALO 90 Å Penta-HILIC, 2.7 μm, 4.6 x 150 mm

Part Number: 92814-705

Mobile Phase A: Water

Mobile Phase B: Acetonitrile

Isocratic: 80% B

Flow Rate: 1.4 mL/min

Initial Pressure: 213 bar

Temperature: 65 °C

Detection: ELSD, 40 °C, 3.3 bar

Injection Volume: 15 μL

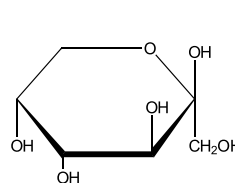
Sample Solvent: 80/20 ACN/ Water

Data Rate: 10 Hz

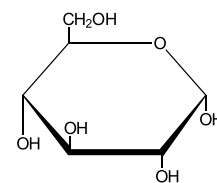
Response Time: 0.10 sec

LC System: Shimadzu Nexera X2

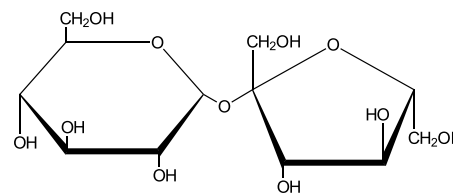
STRUCTURES:



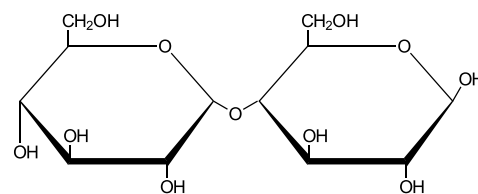
D-(-) Fructose



D-(+) Glucose



Sucrose



D-(+) Maltose

Honey can significantly range in quality depending on its purity and levels of sucrose and maltose. Natural honey primarily consists of fructose and glucose, while adulterated honey can contain high levels of sucrose and maltose. A HALO® Penta-HILIC column separates the primary monosaccharides in pure honey clover showing no signs of adulteration.