

Supplementary Information for:

Manuka honey with varying levels of Active Manuka Factor (AMF) ratings as an anaerobic fermentation substrate for *Limosilactobacillus reuteri* DPC16

Anand Mohan¹, Noemi Gutierrez-Maddox², Tong Meng³, Ning He³, Yihuai Gao⁴, Quan Shu⁴ and Siew Young Quek^{1,5,*}

¹ Food Science, School of Chemical Sciences, The University of Auckland, Auckland, 1010, New Zealand

² School of Sciences, Auckland University of Technology, Auckland, 1010, New Zealand

³ Department of Chemical and Biochemical Engineering, College of Chemistry and Chemical Engineering, Xiamen University, Xiamen 361005, P. R. China

⁴ Bioactives Research New Zealand Limited, Auckland, 1023, New Zealand

⁵ Riddet Institute, New Zealand Centre of Research Excellence for Food Research, Palmerston North, 4474, New Zealand

* Correspondence: sy.quek@auckland.ac.nz; Tel.: +64-9-923-5852

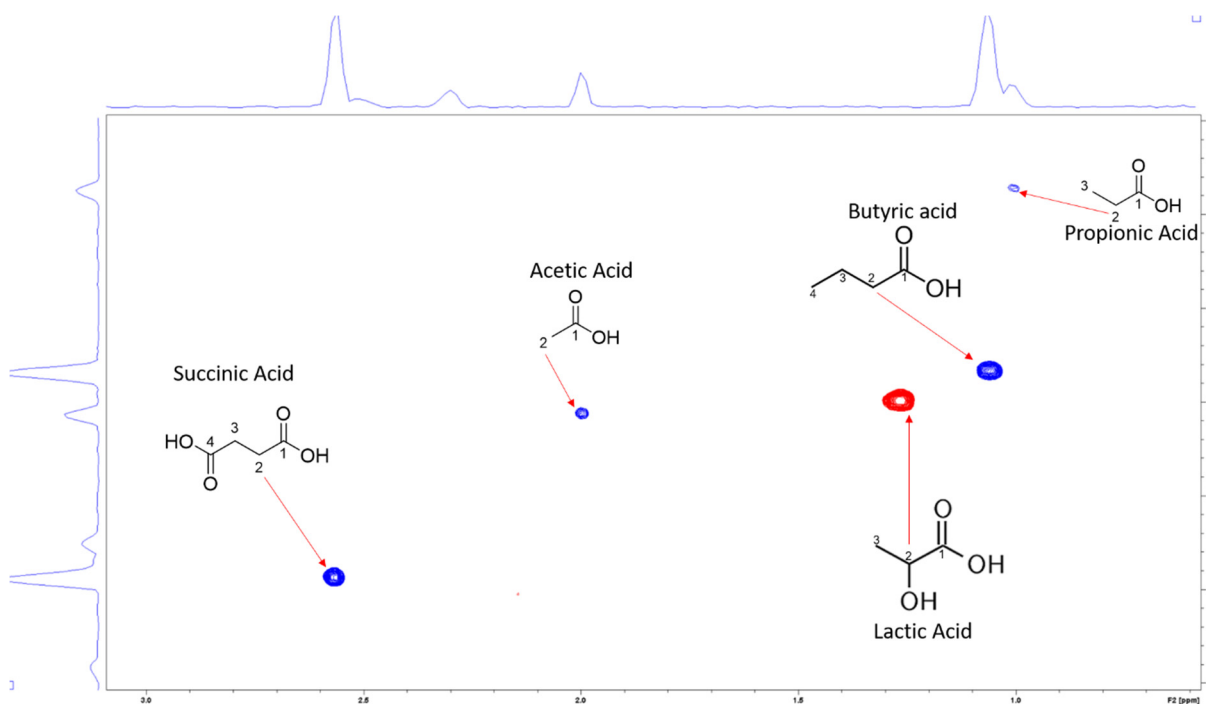


Figure S1. NMR assignment of a mixture of short-chain fatty acid (SCFA) analytical standards used for quantification.

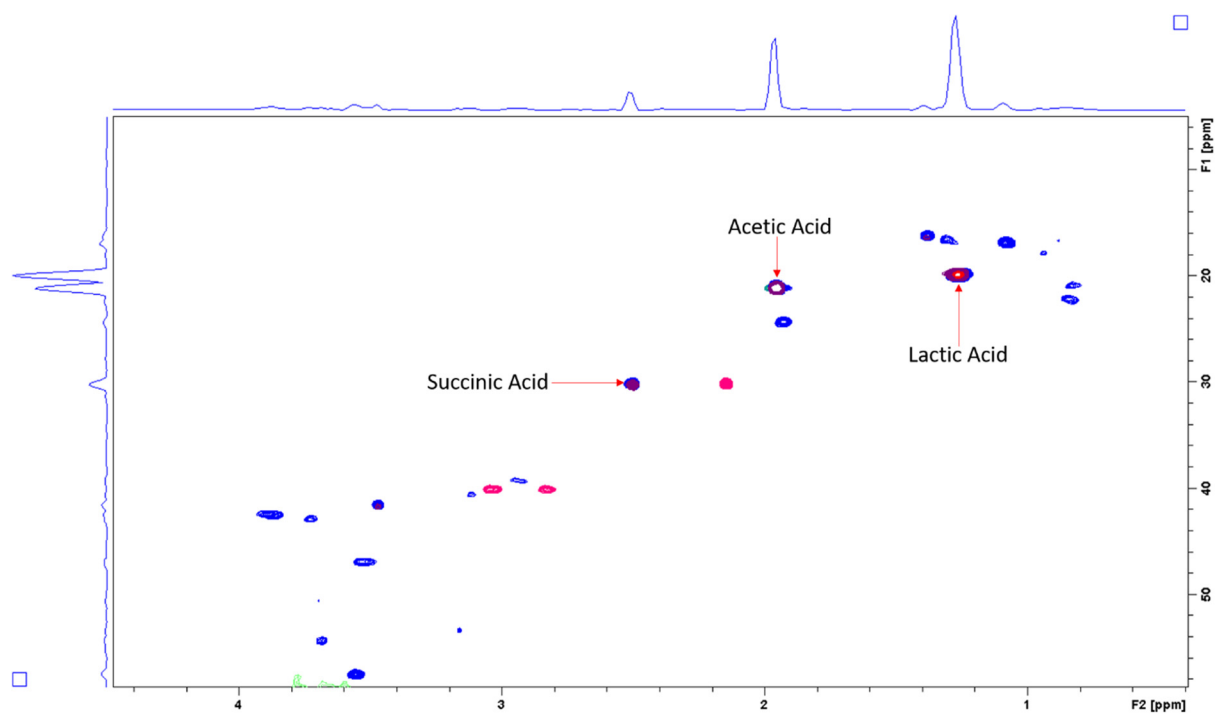


Figure S2. Assignment of short-chain fatty acid (SCFA) standards in fermented MRS cell-free broth (supernatant).

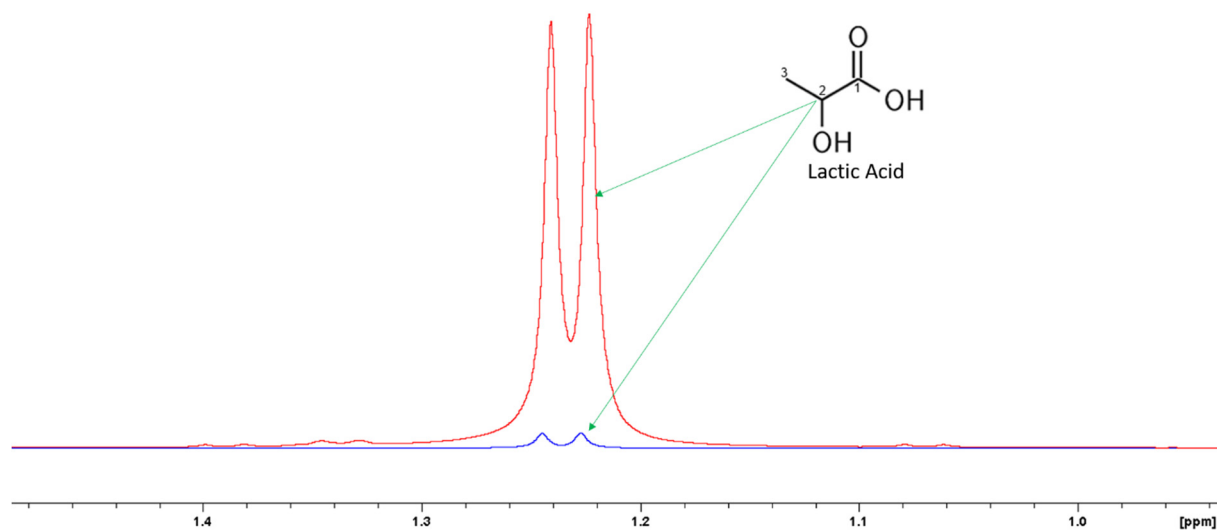


Figure S3. Integral region of lactic acid analytical standard in NMR spectra at different concentrations of 3.125 mM (blue) and 100 mM (red).

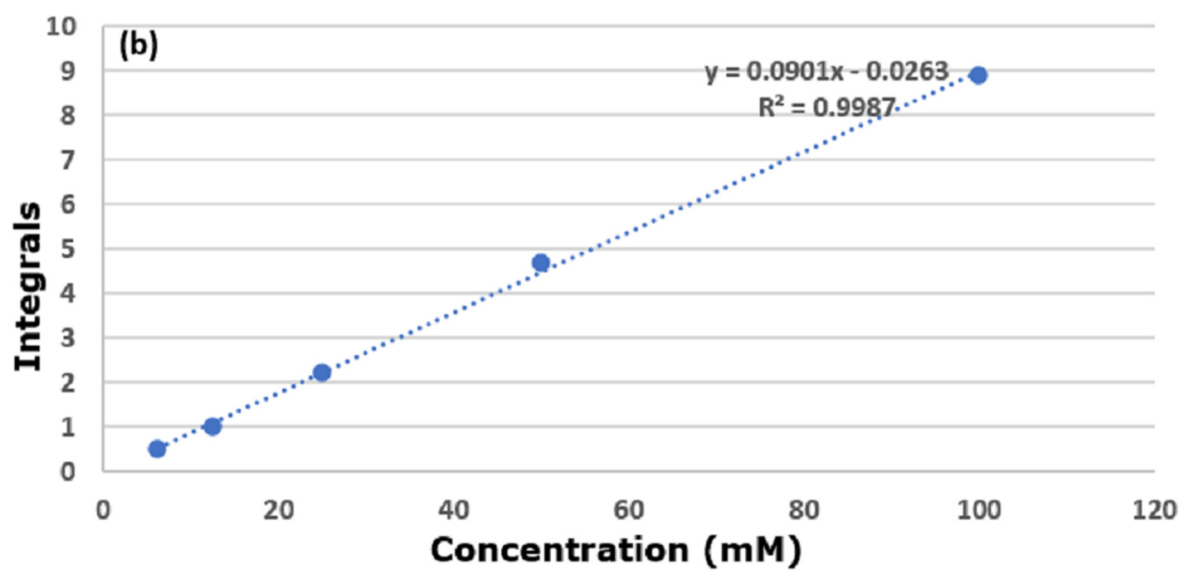
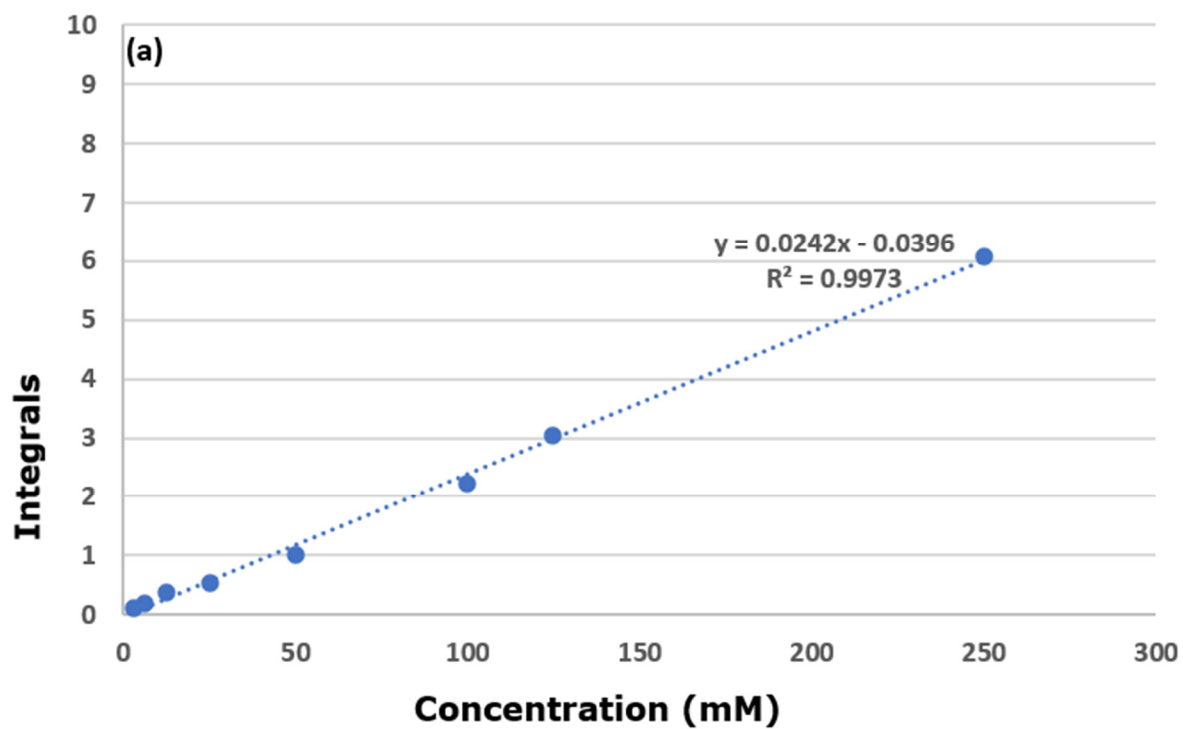


Figure S4. Standard curves of (a) lactic acid (b) acetic acid for NMR quantification.

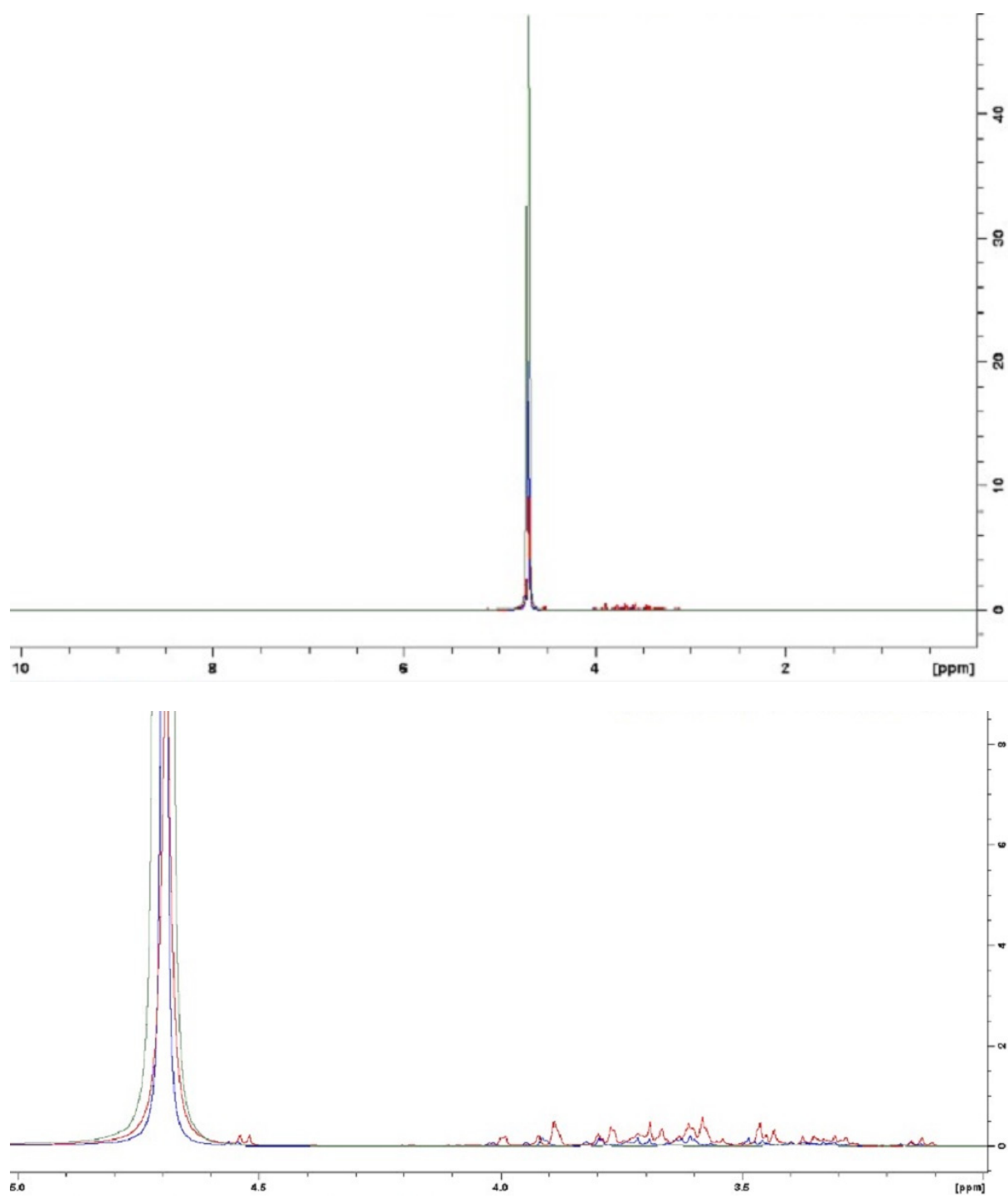


Figure S5. Typical NMR spectra of fructose standard (green), Manuka honey (red) and invert syrup (blue) samples.

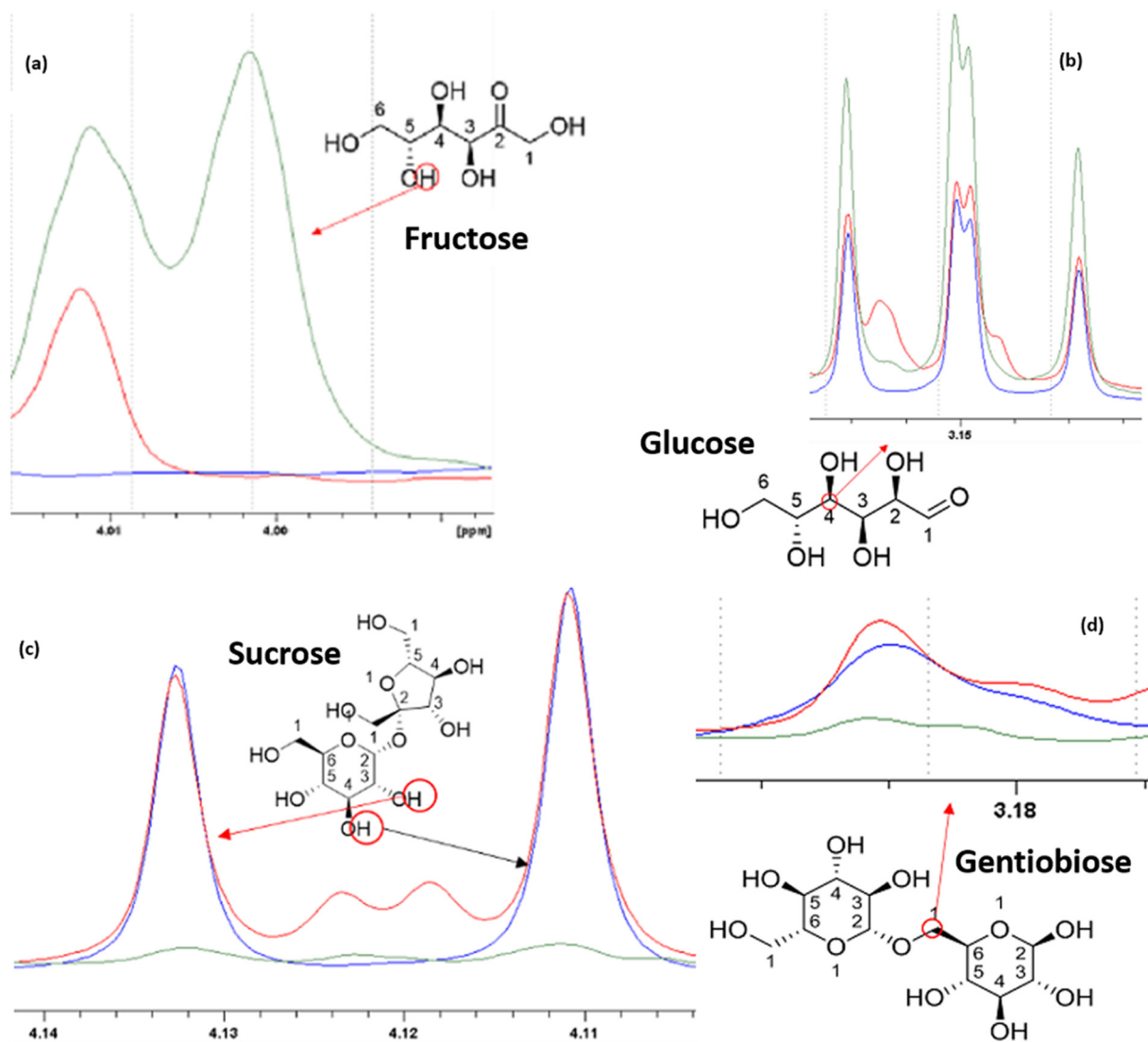


Figure S6. Assignment of the NMR spectra of analytical standards of (a) fructose, (b) glucose, (c) sucrose, and (d) gentiobiose at different concentrations.

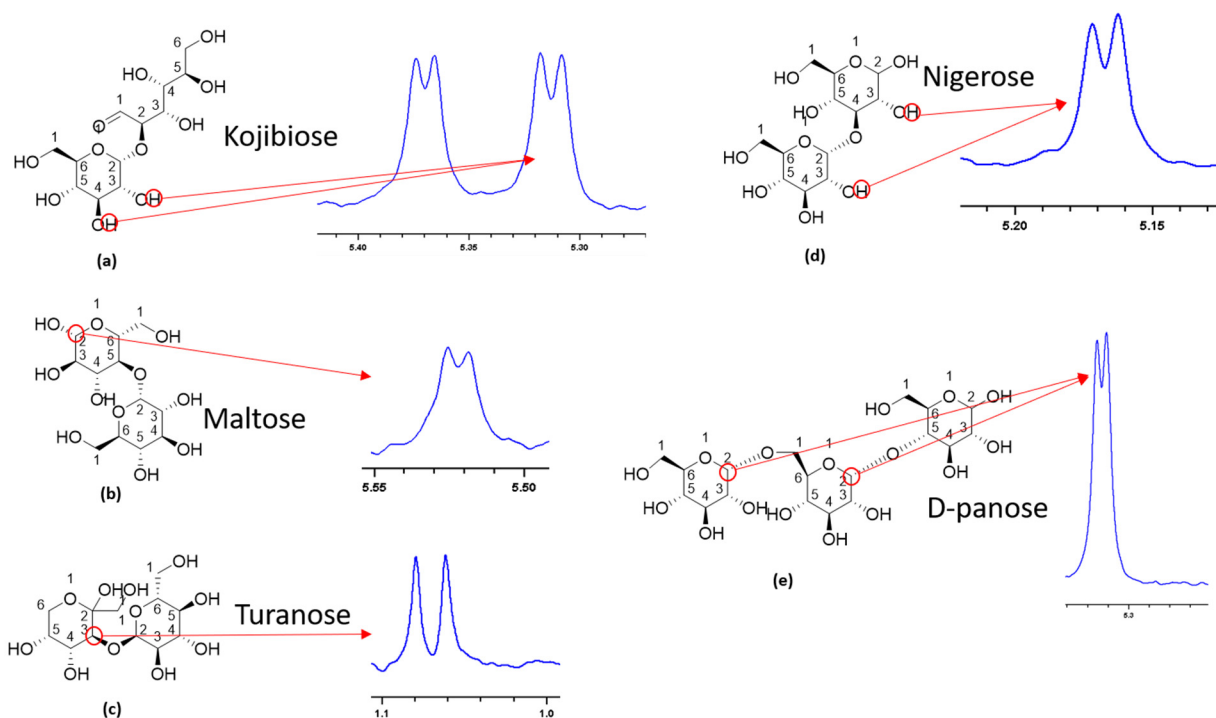


Figure S7. Assignment of the NMR spectra of analytical standards of (a) kojibiose, (b) maltose, (c) turanose, (d) nigerose, (e) D-panose.

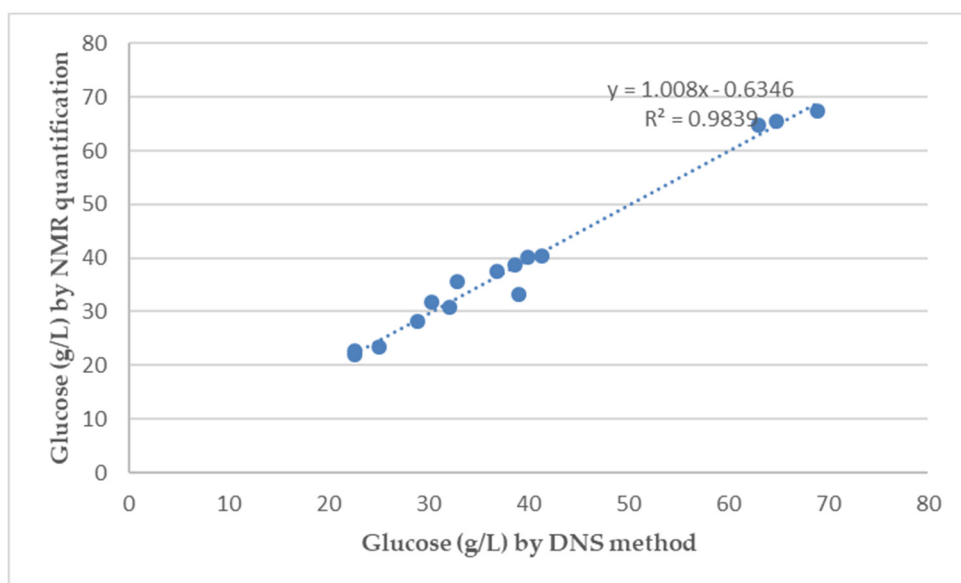


Figure S8. Correlation between the reducing sugar content in invert syrup samples during the 24 hours fermentation in Fig. 2a as quantified by DNS method and NMR.