

Supplementary file 1 for the manuscript: Evaluation of MALDI-TOF MS technology in small ruminants' milk adulteration using raw bovine milk - L. Rysova, P. Cejnar, O. Hanus, V. Legarova, J. Havlik, H. Nejeschlebova, I. Nemeckova, R. Jedelska, M. Bozik

Detailed MALDI-TOF method description

MALDI-TOF MS analysis was performed using an Autoflex Speed (Bruker Daltonics, Germany) equipped with a SmartBeamTM II laser (355 nm) and flexControl software (version 3.4 Build 135, Bruker Daltonics, Germany). Two linear positive methods with different mass ranges (500–4000 Da; 4–20 kDa) and spectra accumulation were developed and used for measurements. The method for peptides (500–4000 Da) has flowing parameters: IS1 19890 V, IS2 18450 V, lens 6000; 6000 shots in 200 steps. The method with the largest range (labeled as 4–20 kDa) has flowing parameters: IS1 19500 V, IS2 18300 V, Lens 7000 V, 8000 shots in 200 steps acquiring the range of approximately 3–17,6 kDa. Each adulterated sample was measured 3 times. The Bruker bacterial test standard (BTS, Daltonics, Germany) and Peptide calibration standard II (Daltonics, Germany) were used for method calibrations; ppm error was 1-7. Both together cover the whole measuring range from 500 to 17000 Da.

Recorded spectra used for the data analysis are available at Zenodo:

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