

## Electronic Supplementary Material

Multifloral white honey outclasses Manuka honey in Methylglyoxal content: assessment of free and encapsulated of both Methylglyoxal and Anti-Microbial Peptides in liposomal formulation against toxigenic potential of *Bacillus subtilis* Subsp spizizenii strain

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### Supplementary Figures (s)

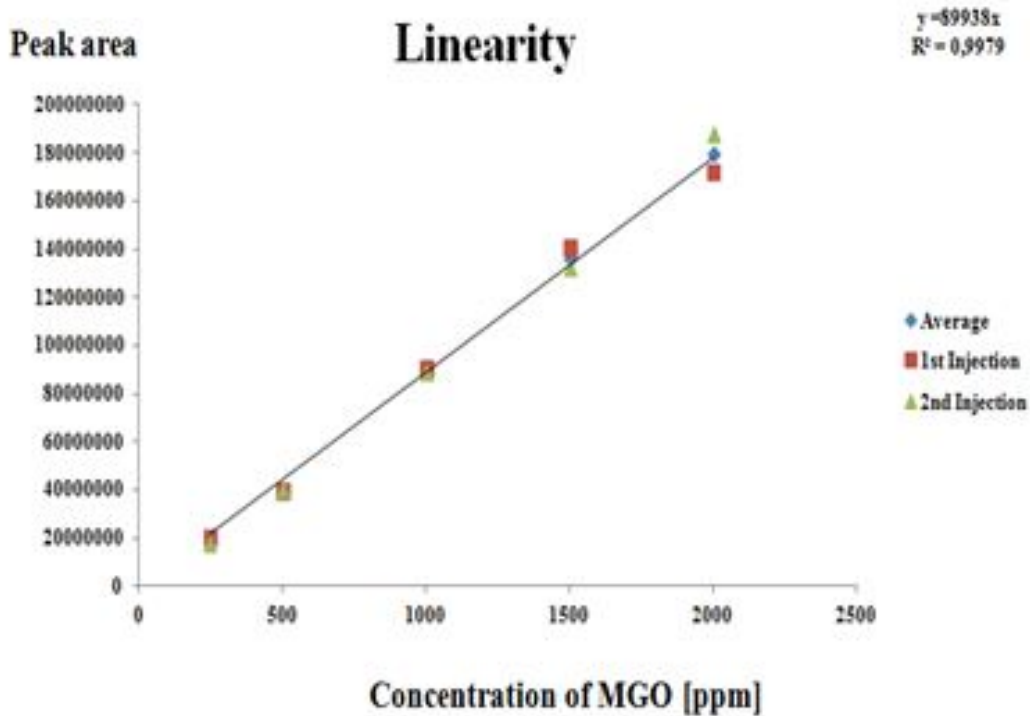
S1: The linear response of 2-methylquinoxaline at different concentrations.....2  
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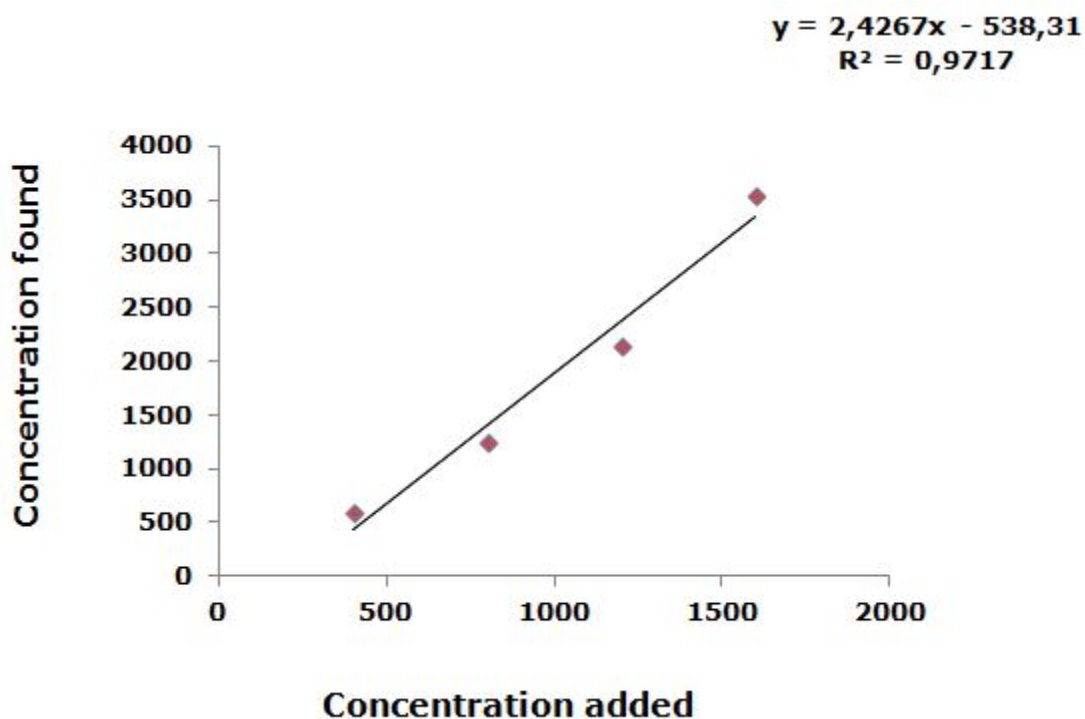
**PP:** Peptide-Loaded-liposome (green); **PT:** Protein-Loaded-Liposome (red); **EL:** Empty-Liposome (dark blue); **MIX:** PP-PT-MGO-Loaded-Liposome (sky blue); **MGO:** Methylglyoxal-Loaded-Liposome (black)

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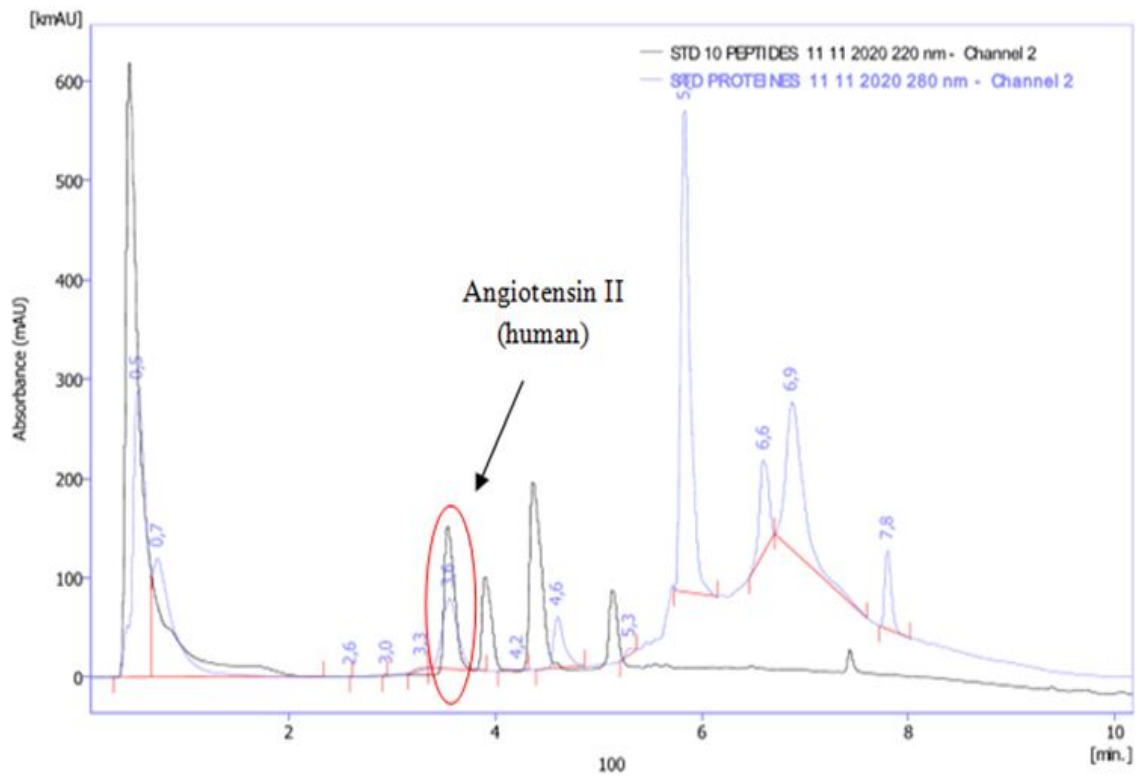
**S:** Sample; **S0:** purified protein; **S1:** protein precipitation with acetonitrile; **S2:** whitish mass obtained after centrifugation at the top of the tube; **S3:** yellowish liquid obtained after centrifugation at the bottom of the tube; **S3':** translucent liquid after centrifugation; **S4:** 1<sup>st</sup> centrifugation; **S5:** 1<sup>st</sup> wash; **S6:** 2<sup>nd</sup> wash; **S7:** 3<sup>rd</sup> wash.



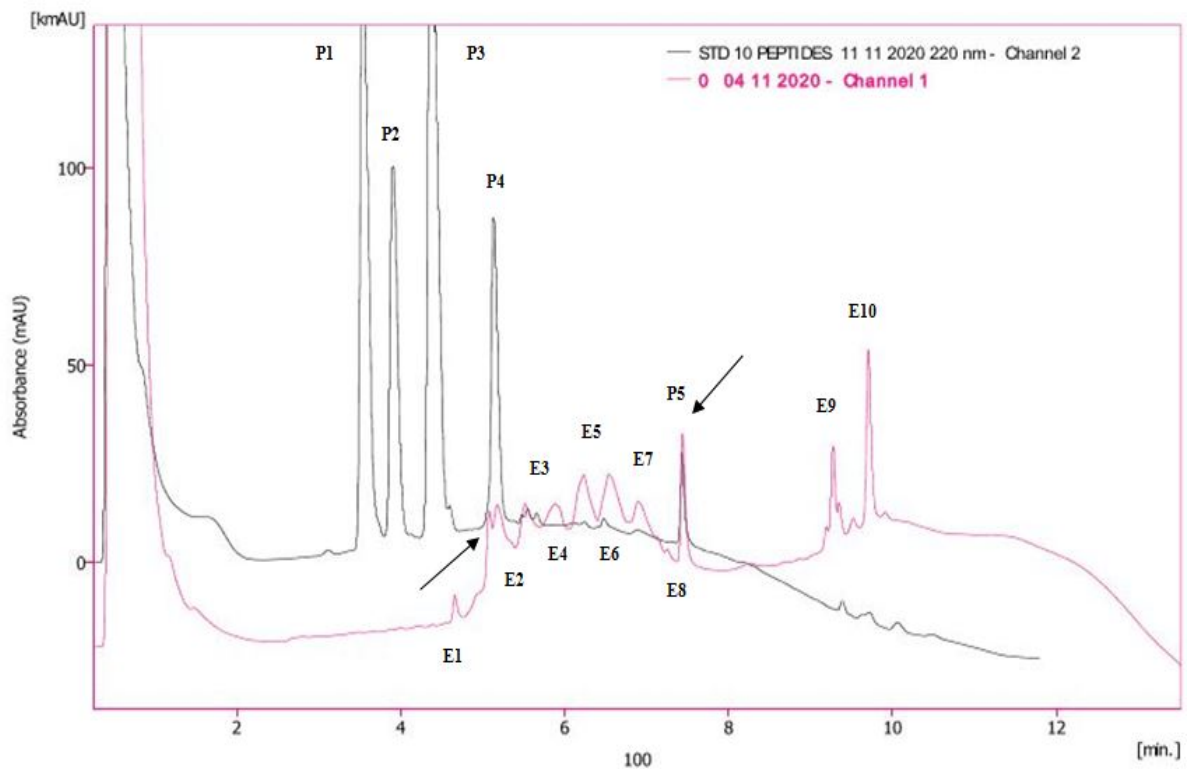
S1: The linear response of 2-methylquinoxaline at different concentrations



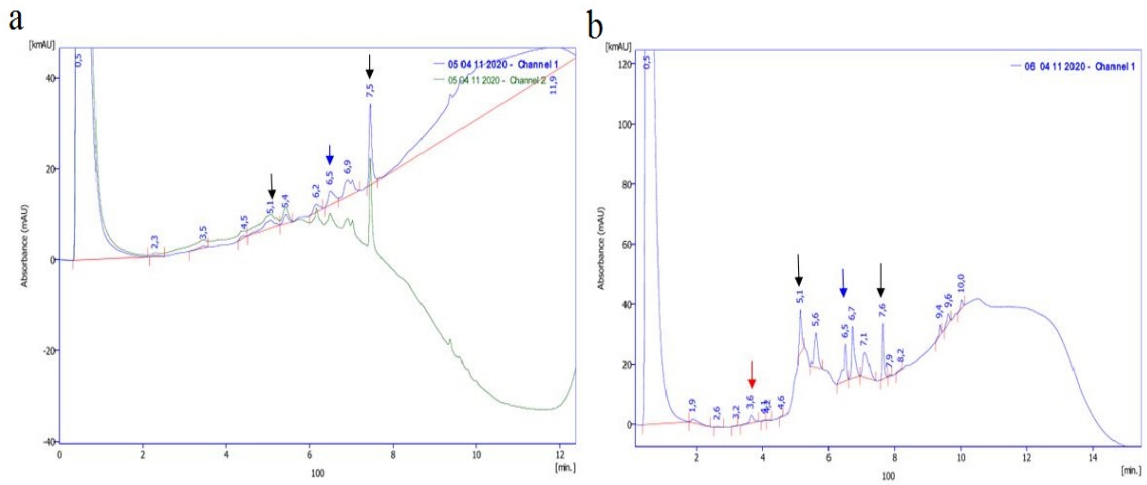
S2: Linear relationship between concentration found and concentration added by the metered additions method



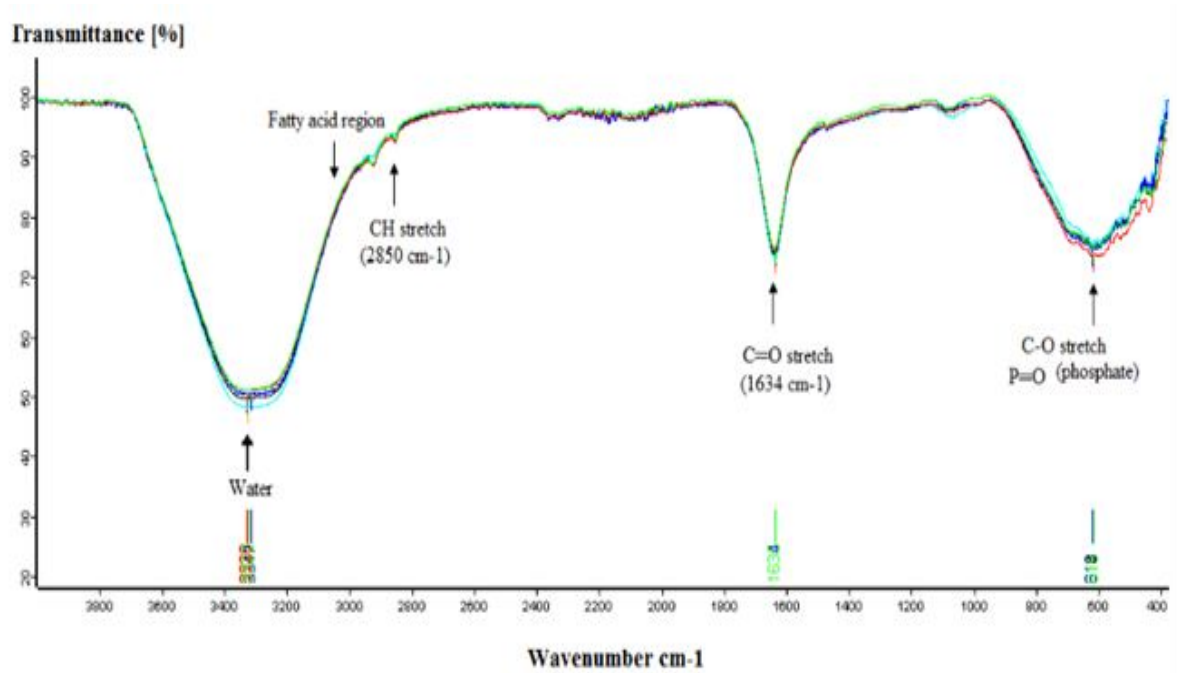
S3: Chromatogram of protein and peptide standards on Poroshell 300 Å Column.



S4: Reversed phase-high performance liquid chromatography (RP-HPLC) profiles of protein fractions produced by solvent precipitation

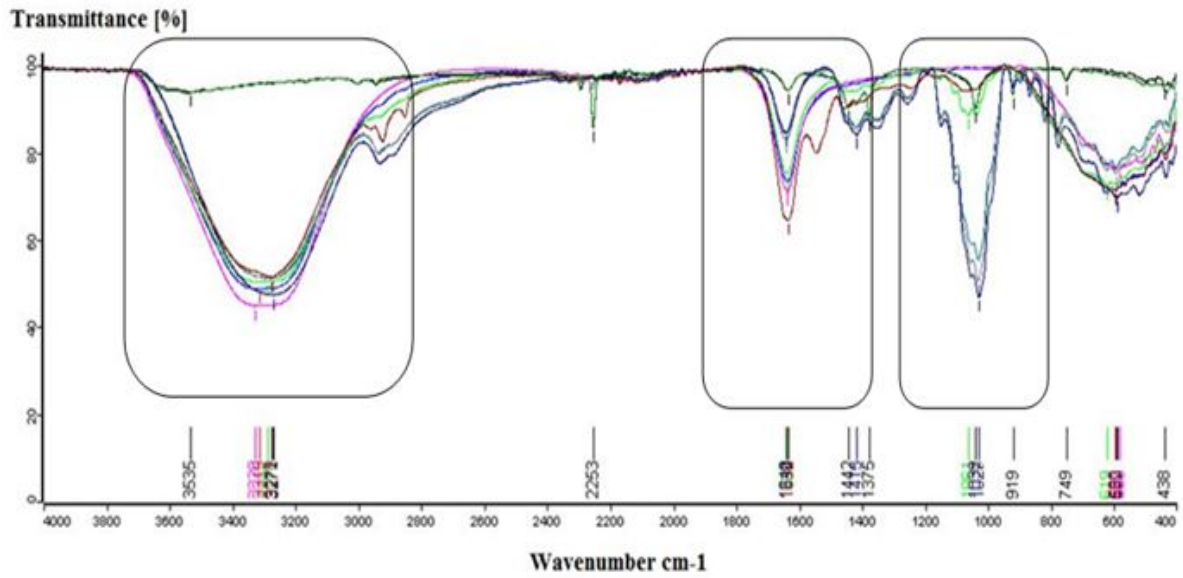


S5: Chromatogram (a): sample # 5 eluted with 10% methanol and 90% water; (b): sample # 6 received 100% ammonium hydroxide



S6 Spectral signatures of drug-loaded-liposomes (full vs empty) by color code

**PP:** Peptide-Loaded-liposome (green); **PT:** Protein-Loaded-Liposome (red); **EL:** Empty-Liposome (dark blue); **MIX:** PP-PT-MGO-Loaded-Liposome (sky blue); **MGO:** Methylglyoxal-Loaded-Liposome (black)



S7: ATR-FTIR spectra of purified proteins after extraction with acetonitrile and several washes to remove sugars

**S:** Sample; **S0:** purified protein; **S1:** protein precipitation with acetonitrile; **S2:** whitish mass obtained after centrifugation at the top of the tube; **S3:** yellowish liquid obtained after centrifugation at the bottom of the tube; **S3':** translucent liquid after centrifugation; **S4:** 1<sup>st</sup> centrifugation; **S5:** 1<sup>st</sup> wash; **S6:** 2<sup>nd</sup> wash; **S7:** 3<sup>rd</sup> wash.