

Electronic Supplementary Information

The purity of the prepared protein solutions was tested using a mass spectrometer (Thermo Scientific, LTQ Orbitrap XL). Figure 1 shows a single major elution peak (at about 22 minutes) and the corresponding deconvoluted mass is presented in Fig. 2, establishing the purity of insulin with an expected molecular weight of 5808. The protein solution was desalted prior to the analysis and the satellites at higher values of the abscissa are from sodium and potassium adducts.

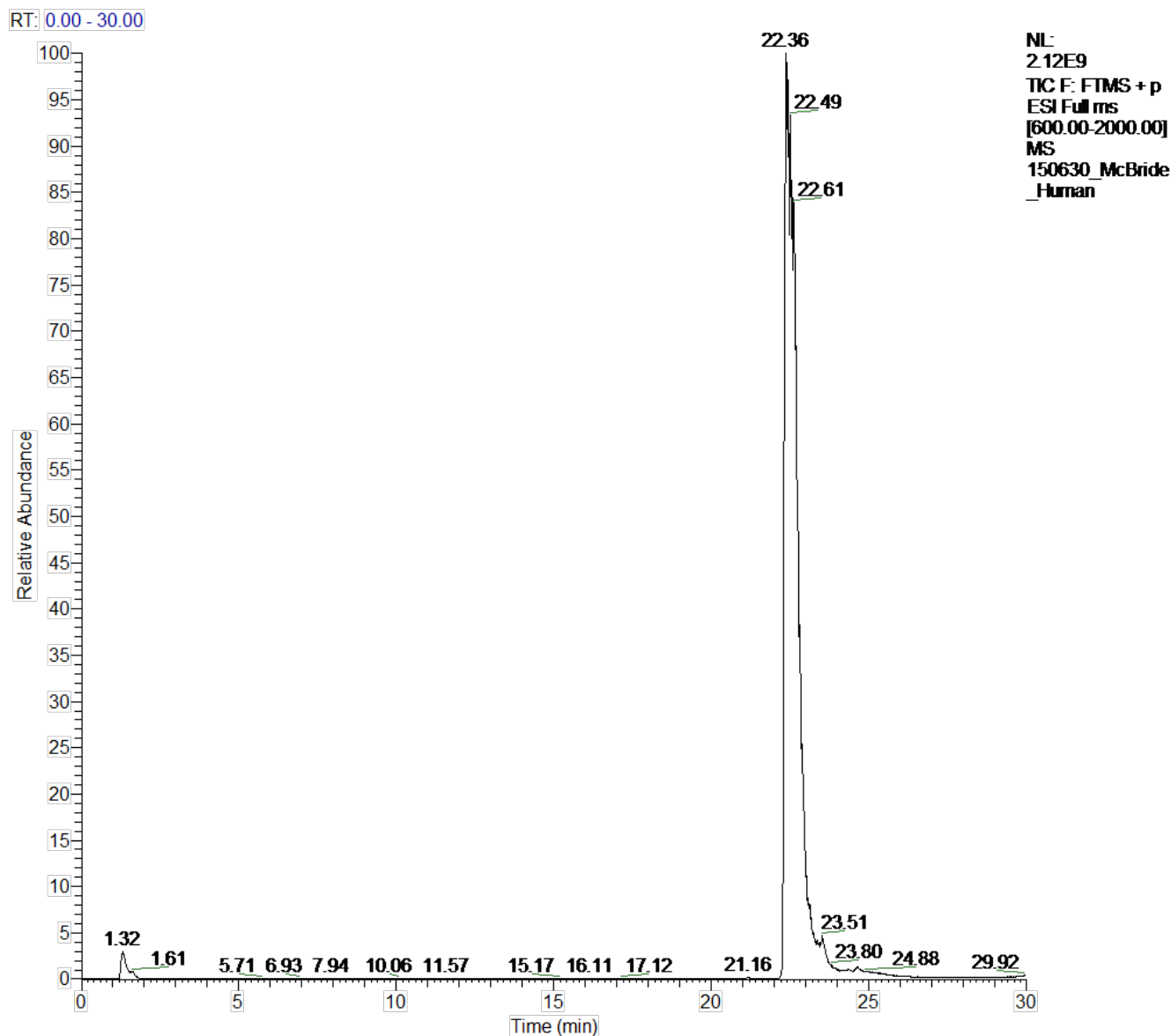


Figure 1: Liquid chromatography for human insulin (MW 5808) solution with one major elution peak.

150630_McBride_Human_xtract #45-204 RT: 22.28-23.59 AV: 80 NL: 2.85E7
F: FTMS + p ESI Full ms

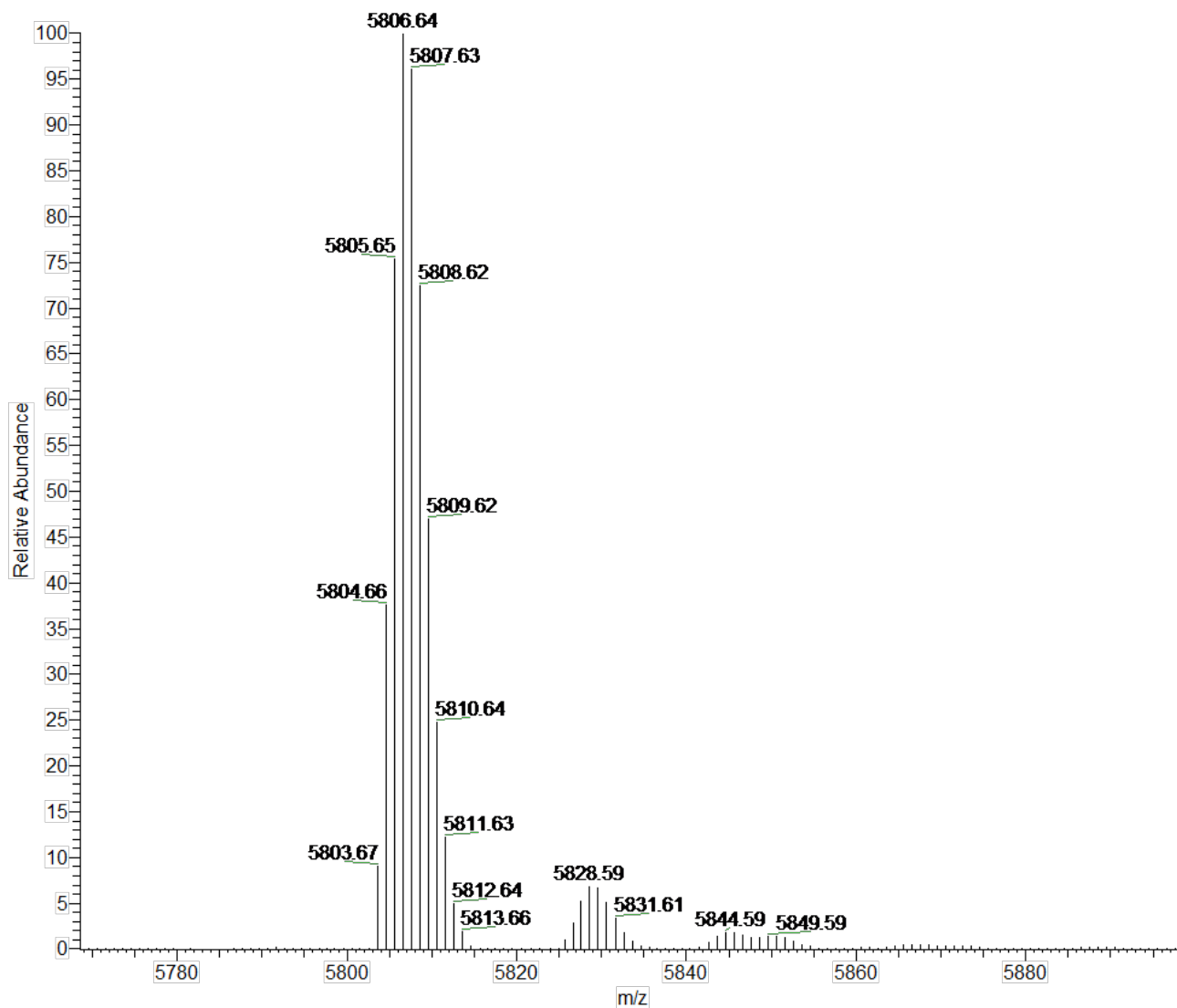


Figure 2: Mass to charge ratio spectrum from the major elution peak demonstrates that majority of mass is at the molecular weight of 5808. Data indicates purity of the protein solution and no contamination.