



**S2 Figure. Mass spectra for the HbS bT1 peptide (Parent Ion) acquired in MS1 scan and its y7-fragment (daughter ion) acquired in MS2 scan.** All spectra were recorded in 'Multi Channel Analysis' mode acquisition during 30 s with automatic cycle time adjustment and 2.0 s scan duration. The spectra were obtained by infusing solutions of the peptide (1.0  $\mu\text{g}/\text{mL}$ ) dissolved in an acetonitrile-based (solid line) and methanol-based (dotted) mobile phase.