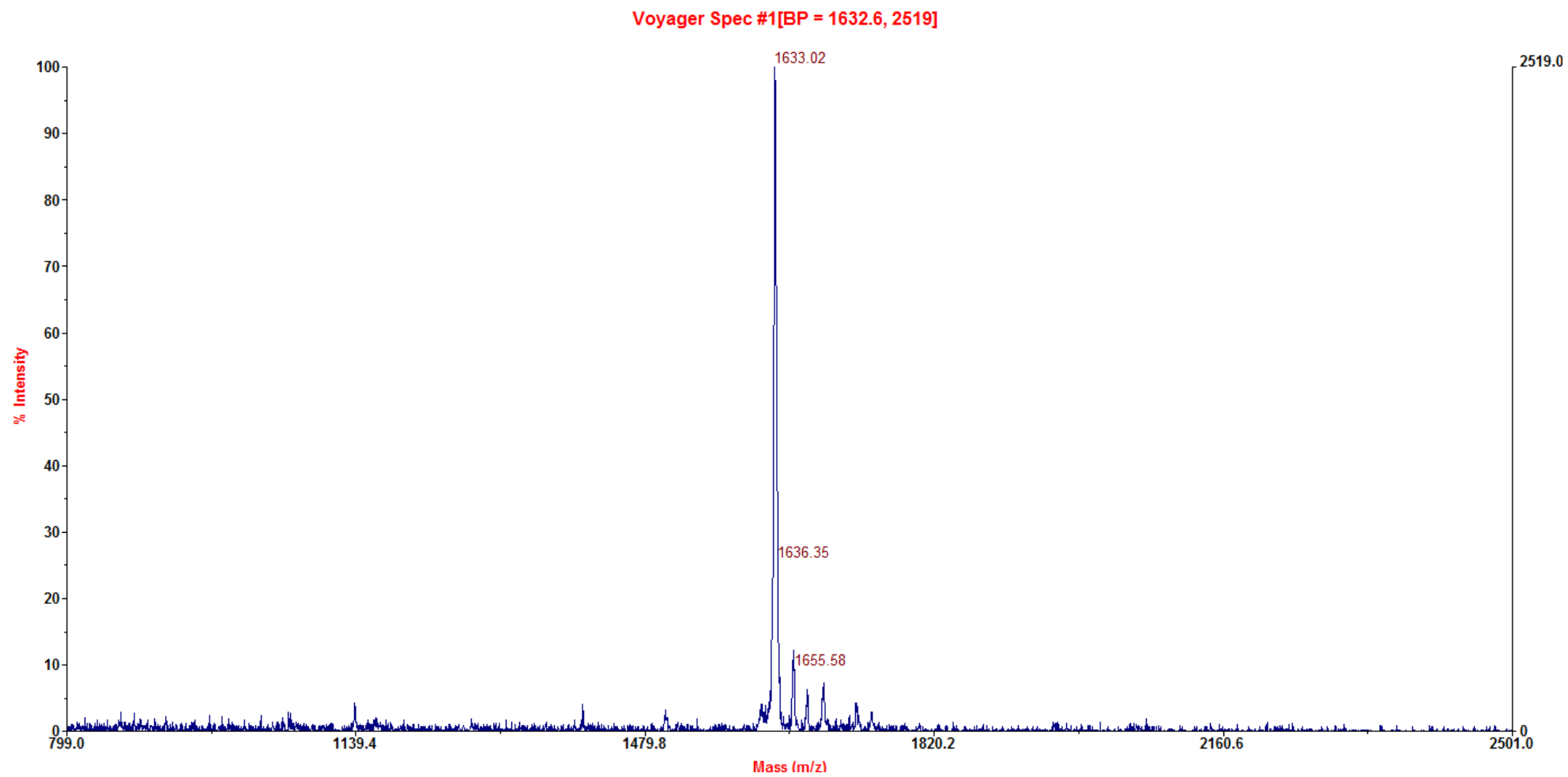
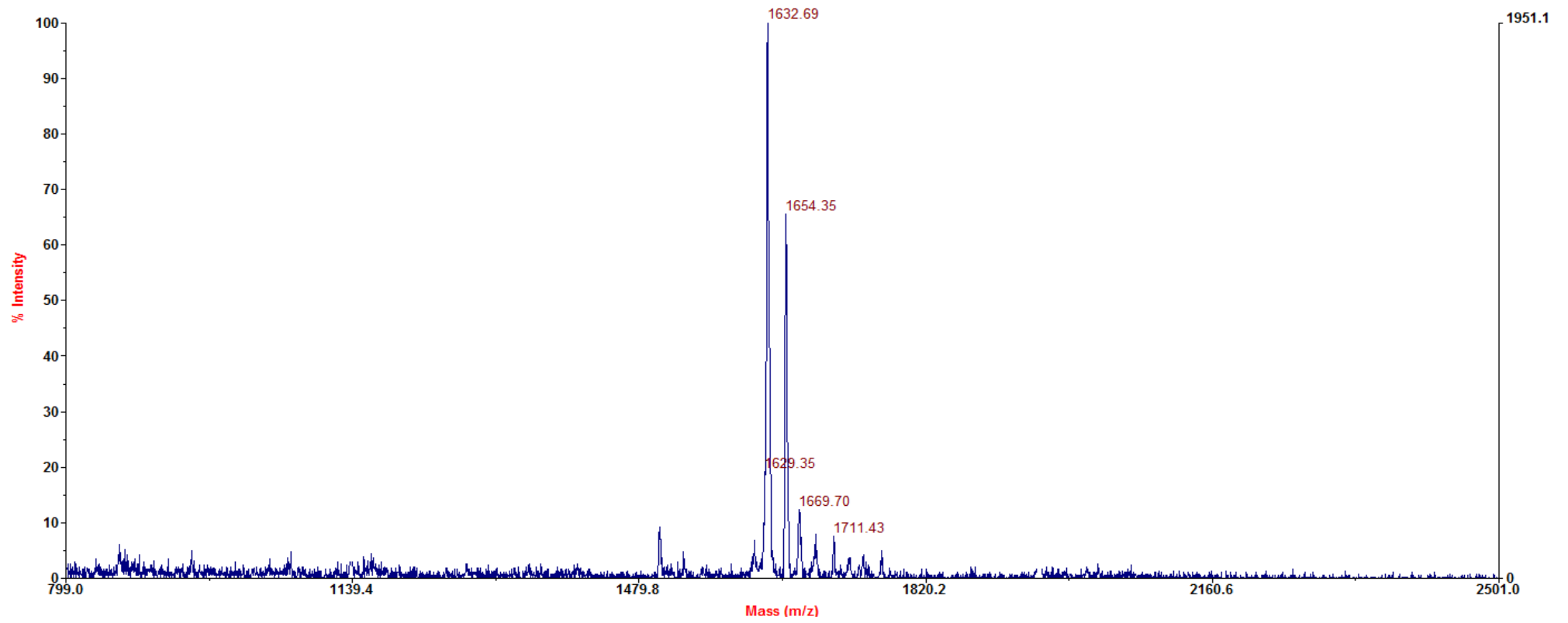


# Supplementary data

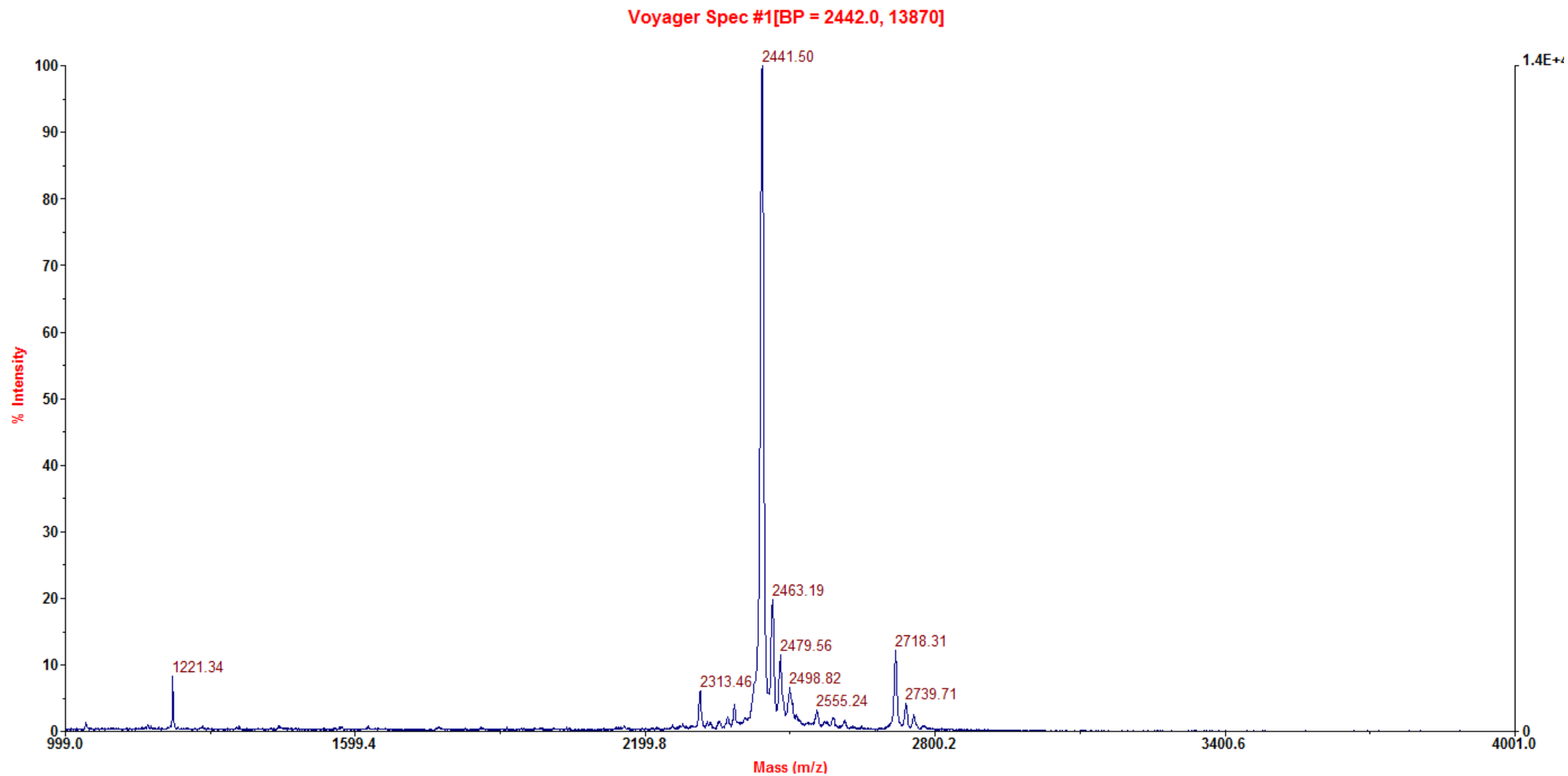


(a)

Voyager Spec #1[BP = 1632.2, 1951]

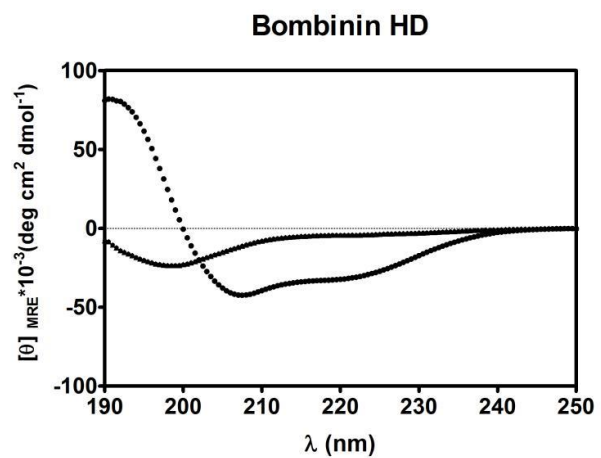
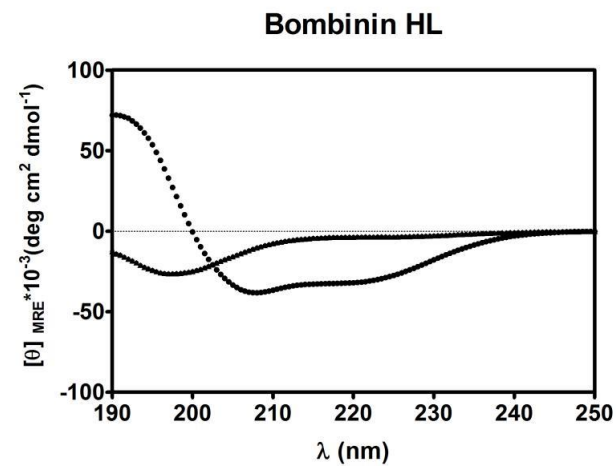
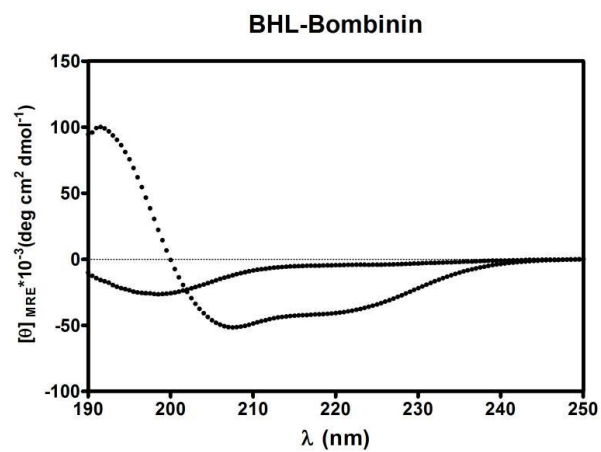


(b)

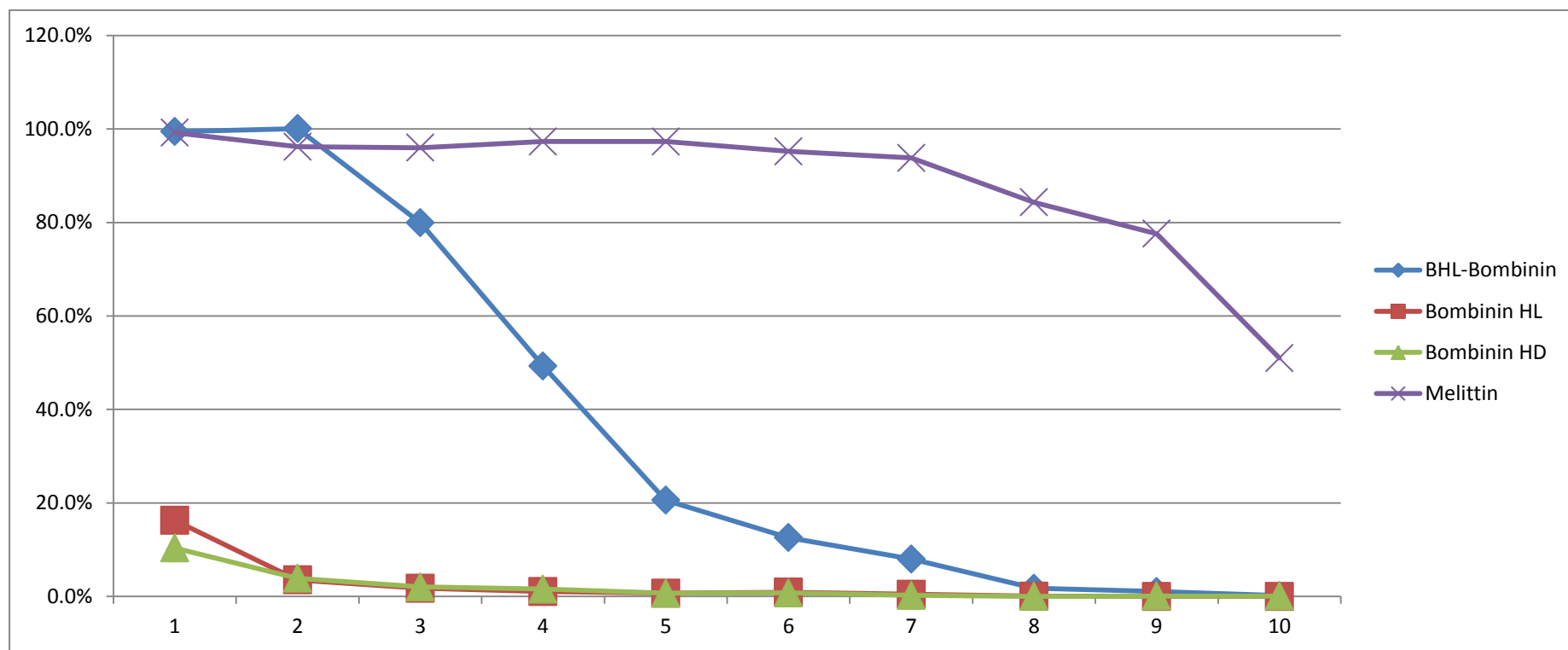


(c)

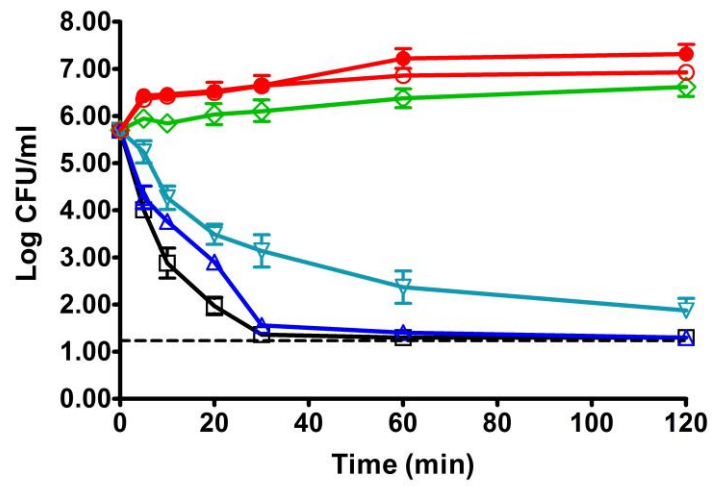
**Figure S1** MALDI-TOF (Perceptive Biosystem, Bedford, MA, USA) mass spectrum of synthetic peptide (a) bombinin HL and (b) bombinin HD and (c) BHL-bombinin. In (b), the initial neutral molecule bombinin HD [M] and metal ion adducts ( $[M+Na]^+$ : 1654.35Da and  $[M+K]^+$ : 1669.70Da) were observed.



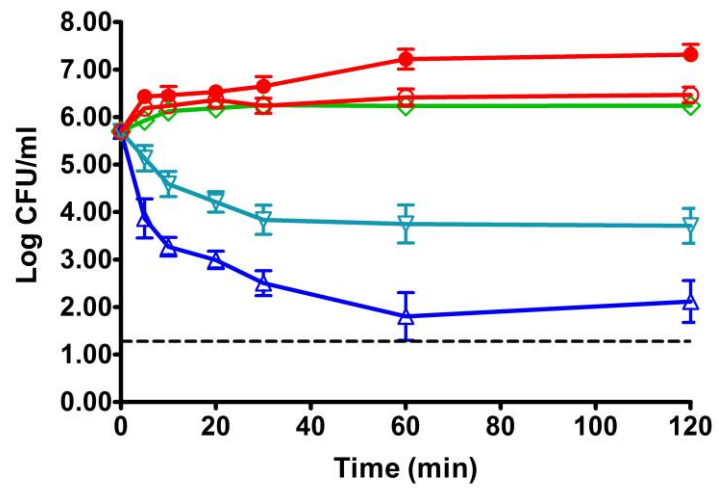
**Figure S2** CD spectra of the peptides in 10 mM ammonium acetate buffer (triangles) and 50% TFE (circles). The mean residue ellipticity was plotted against wavelength. The values from three scans were calculated as average per sample. The peptide concentrations were fixed at 100  $\mu$ M.



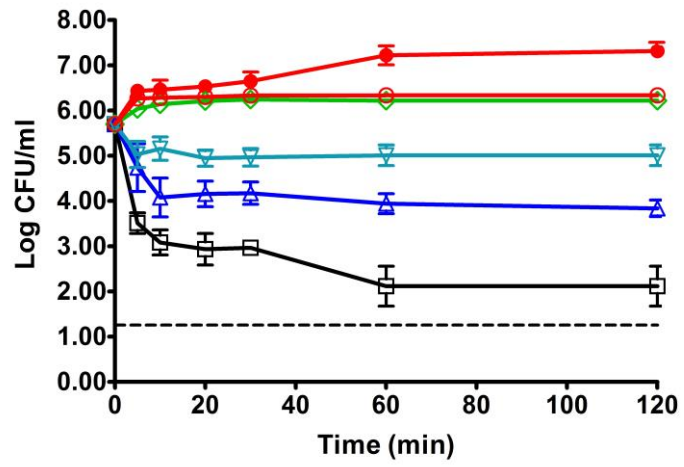
**Figure S3** Haemolytic activities of BHL-bombinin (diamond), bombinin HL (square), bombinin HD (triangle) and melittin (cross) following incubation with horse erythrocytes for 2 h.



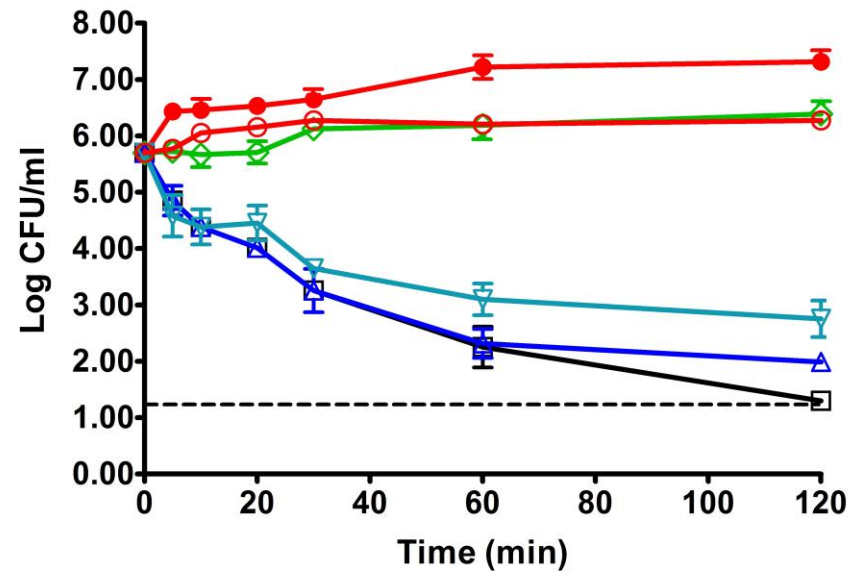
(a)



(b)

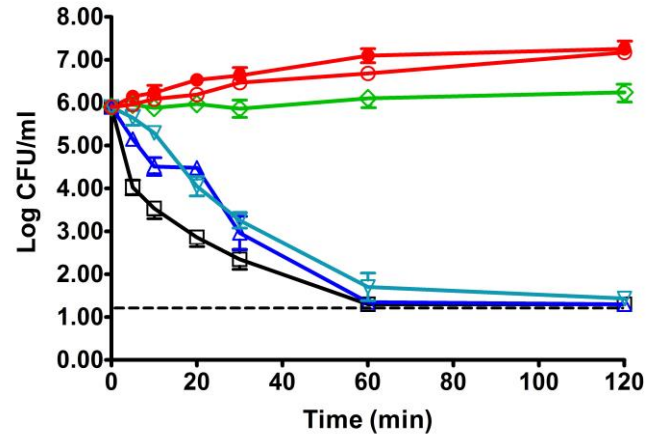


(c)

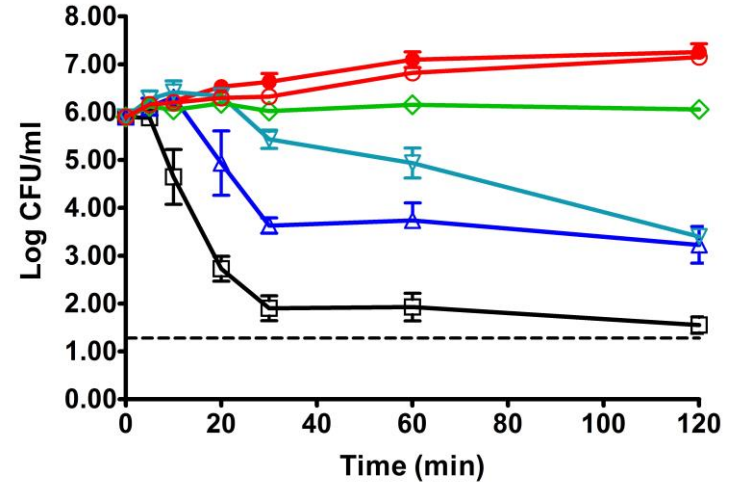


(d)

A



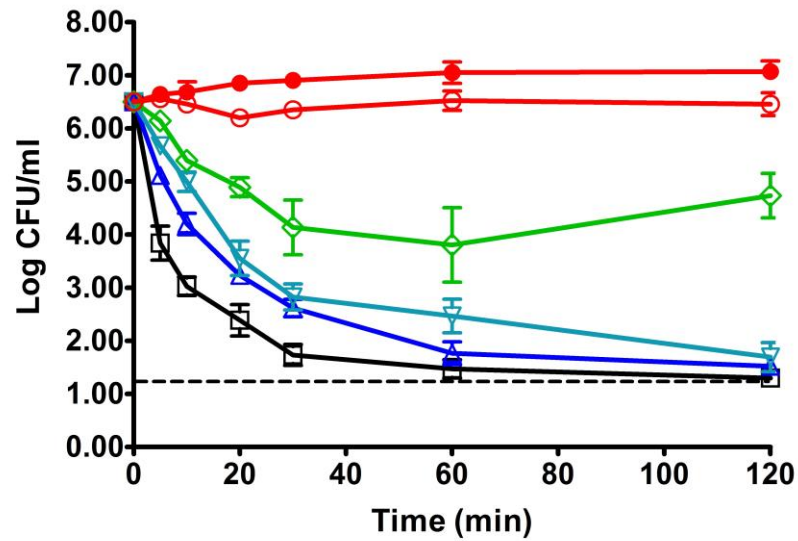
(e)



(f)

B





(g)

C

**Figure S4** Time-killing curves of peptides and ampicillin at a series of concentrations: control (red filled circle), 0.25xMIC (red unfilled circle), 0.5xMIC (green diamond), 1xMIC (blue inverted triangle), 2xMIC (purple triangle) and 4xMIC (black square) against A: *S.aureus* [(a) BHL-bombinin (b) bombinin HL (c) bombinin HD (d) ampicillin]; B: *E.coli* [(e) BHL-bombinin (f) ampicillin]; C: *C.albicans* [(g) BHL-bombinin]. The detection limit was indicated as dashed line and the graphs were derived value of three independent trials.