

Supporting Information

Targeting folded RNA: A branched peptide boronic acid that binds to a large surface area of HIV-1 RRE RNA

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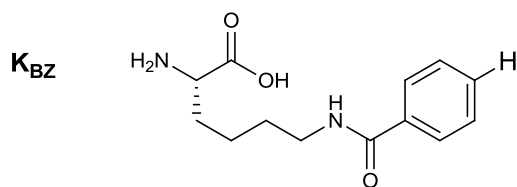
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Figure S1. Sequences **BPBA 1.1** and **BPBA 1.2** with structures of **K_{BZ}** and **K_{FBA}**

BPBA 1.1 (WKK)₂***K_{BZ}**YWY



BPBA 1.2 (WKK)₂***K_{FBA}**YWY

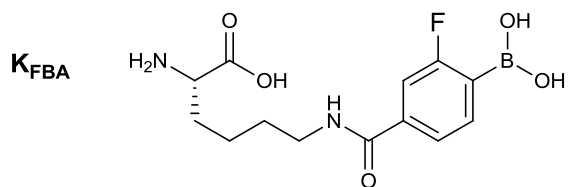
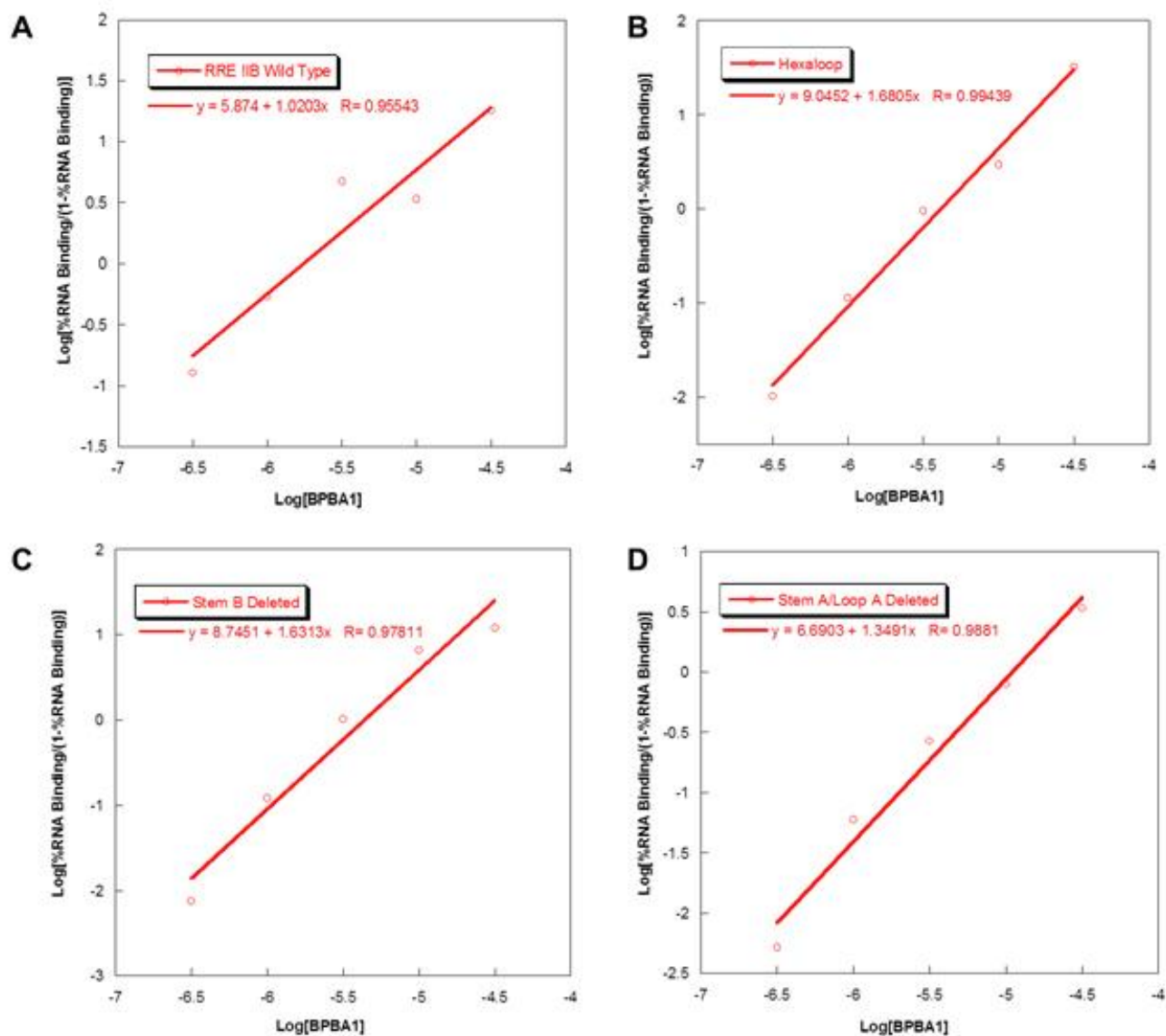


Figure S2. Hill plot of **BPBA1** (from dot blot data) against (A) RRE IIB Wild Type, (B) HexaLoop, (C) Stem B Deleted, (D) Stem A/Loop A Deleted, (E) Loop B/Bulge A Deleted, (F) Loop A(A-G)/B/Bulge A Deleted, and (G) Loop A/B/Bulge A Deleted.



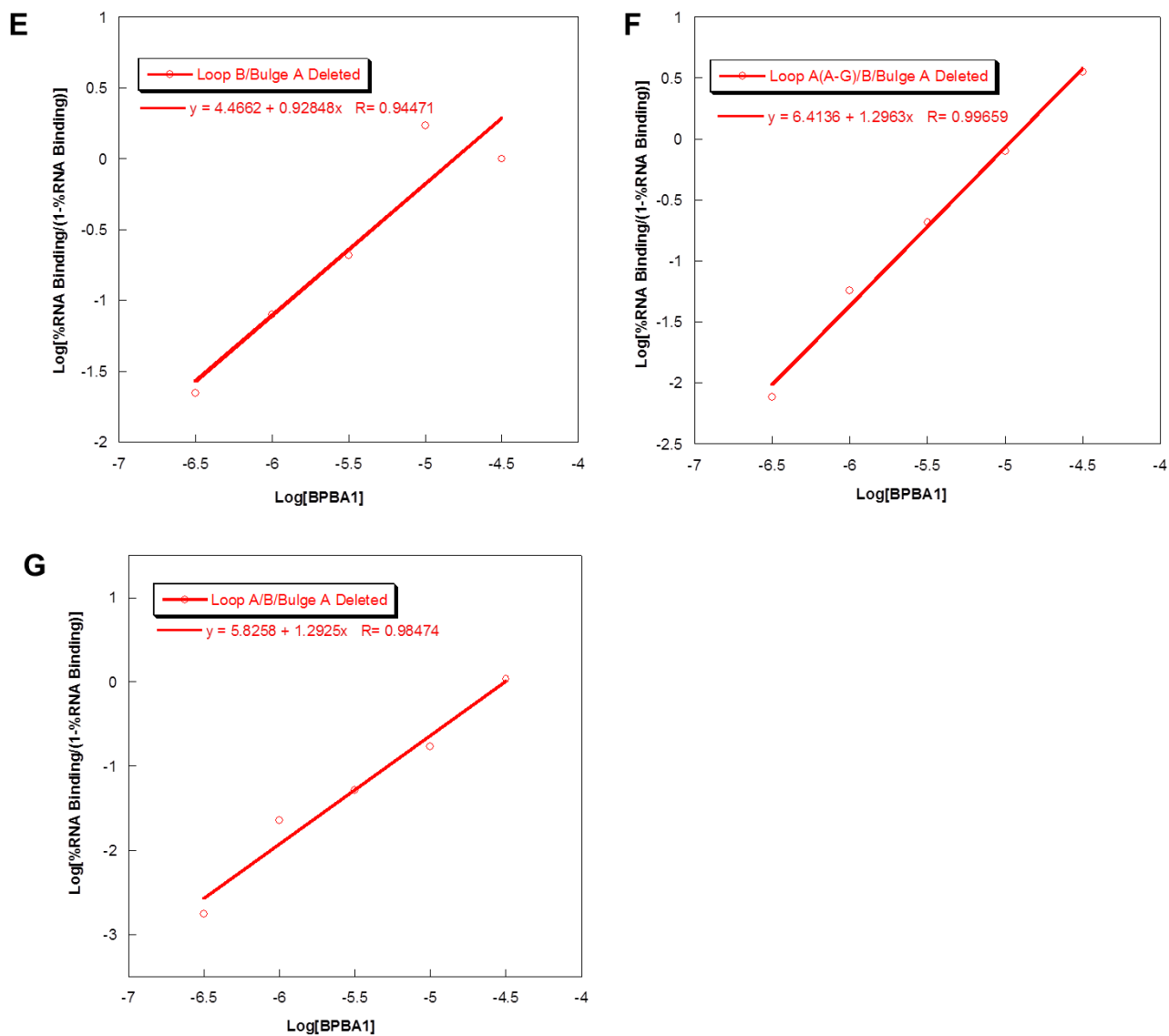


Figure S3. MTT toxicity assay of HeLa cells with **BPBA1** at varying concentrations over 24 hours. The relative cell viability data shown is the average of three independent experiments, each run in triplicate.

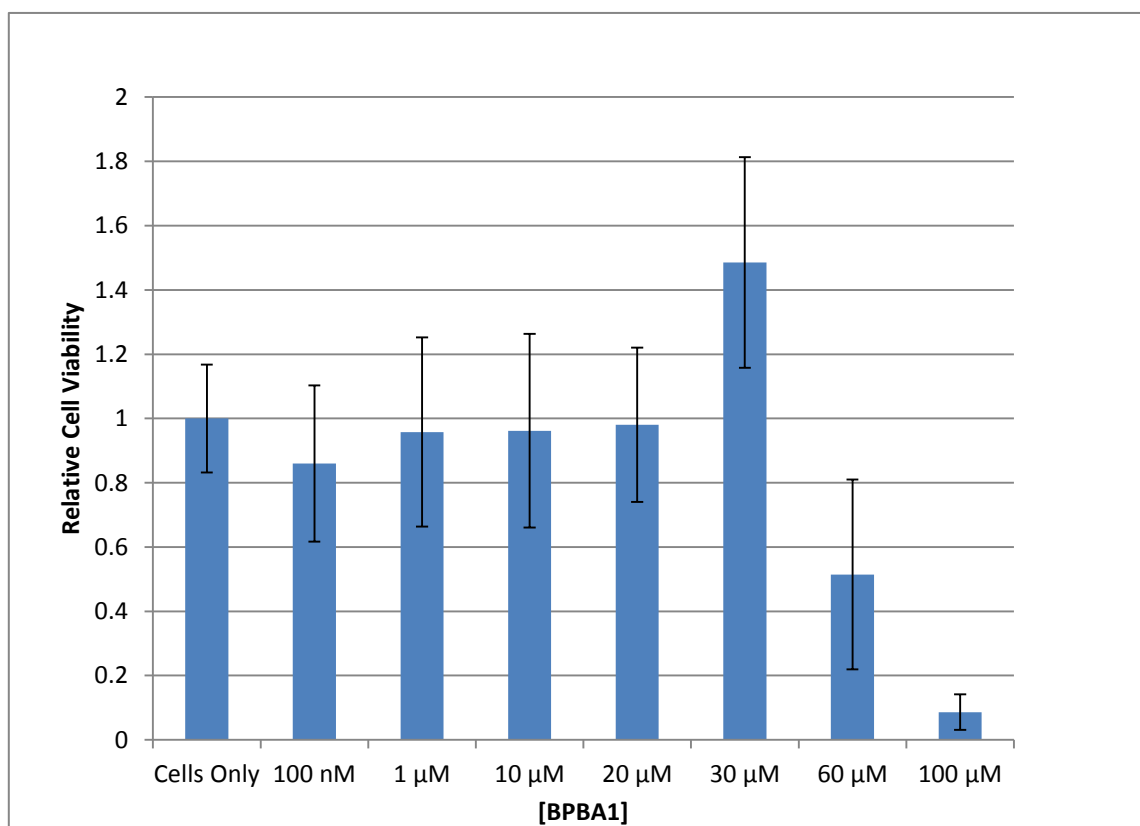
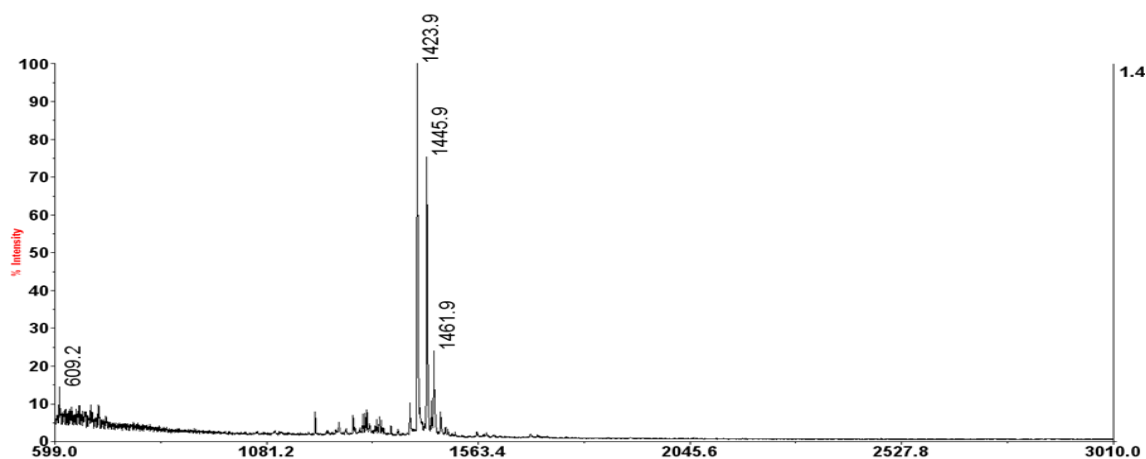


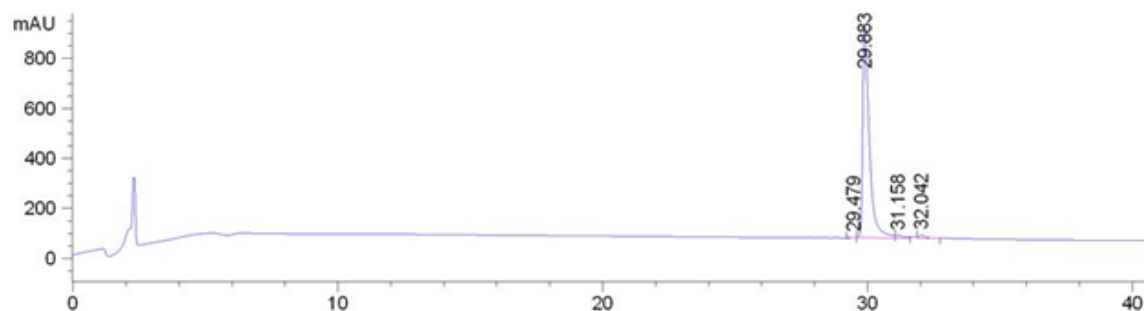
Figure S4. Linear Control Peptides and Random Peptide HPLC Condition, Purity, and Identification by MALDI/MS

HPLC Solvent A: 0.1% TFA in Milli-Q water, Solvent B: HPLC grade acetonitrile. Peptides purity were determined using a Jupiter 4 μm Proteo 90 Å analytical column (Phenomenex), and peptide identity was confirmed by MALDI-TOF analysis.

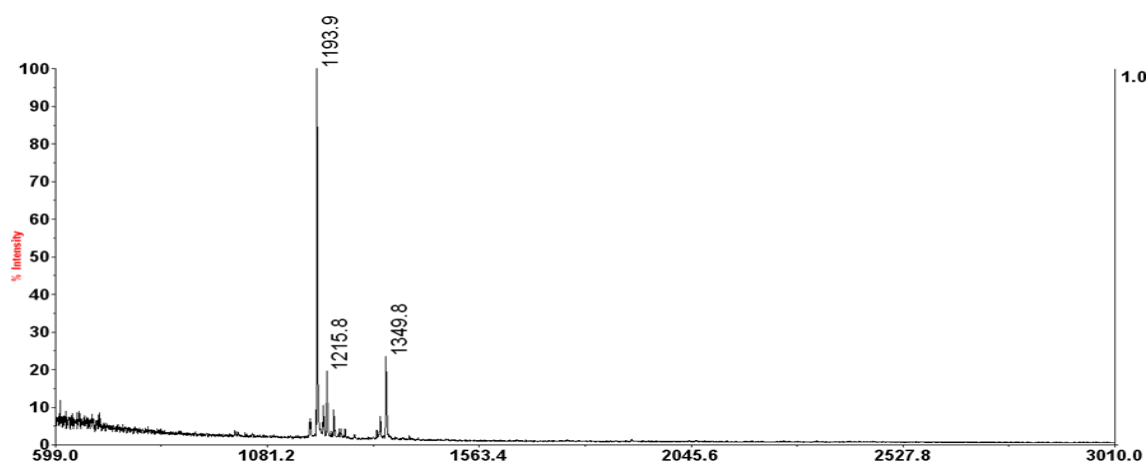
LPBA1 Predicted Mass: 1423.3, Mass Detected: 1423.8



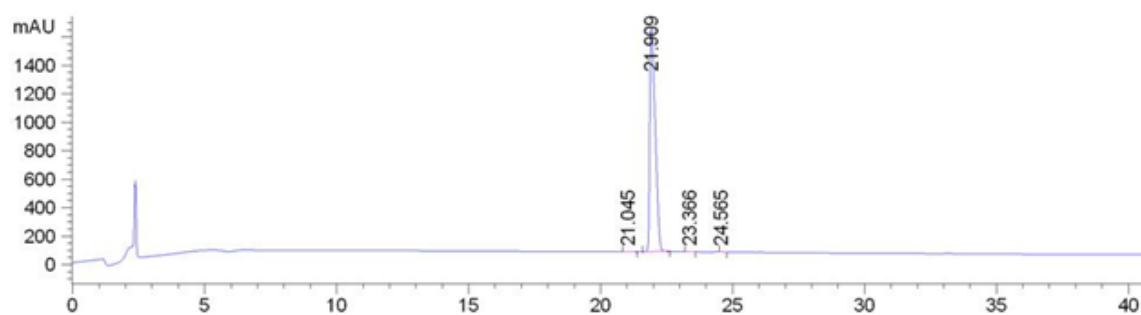
The Purity (97%) was determined by analytical HPLC employing a linear gradient of 12%-30% B in A in 30min at a flow rate of 0.2mL/min following a wash procedure.



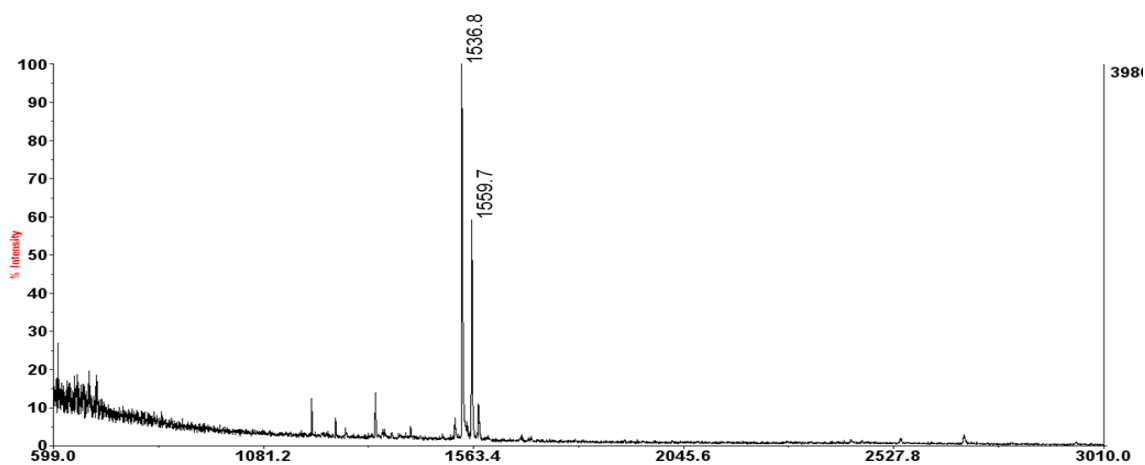
LPBA2 Predicted Mass: 1193.5, Mass Detected: 1193.8



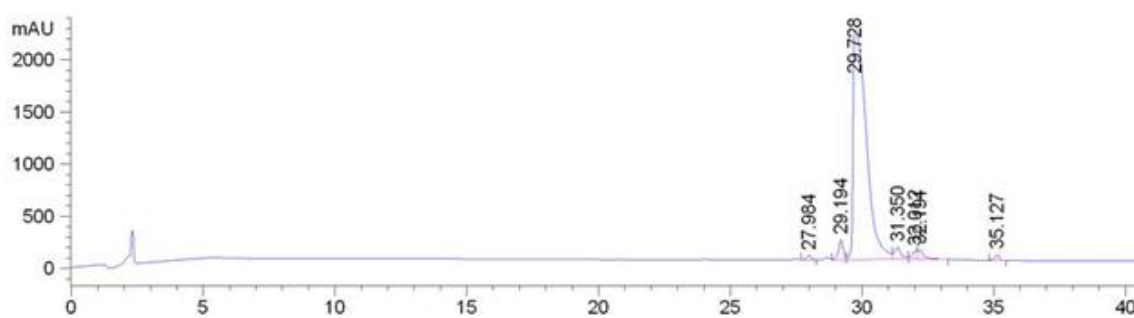
The Purity (99%) was determined by analytical HPLC employing a linear gradient of 8%-28% B in A in 30min at a flow rate of 0.2mL/min following a wash procedure.



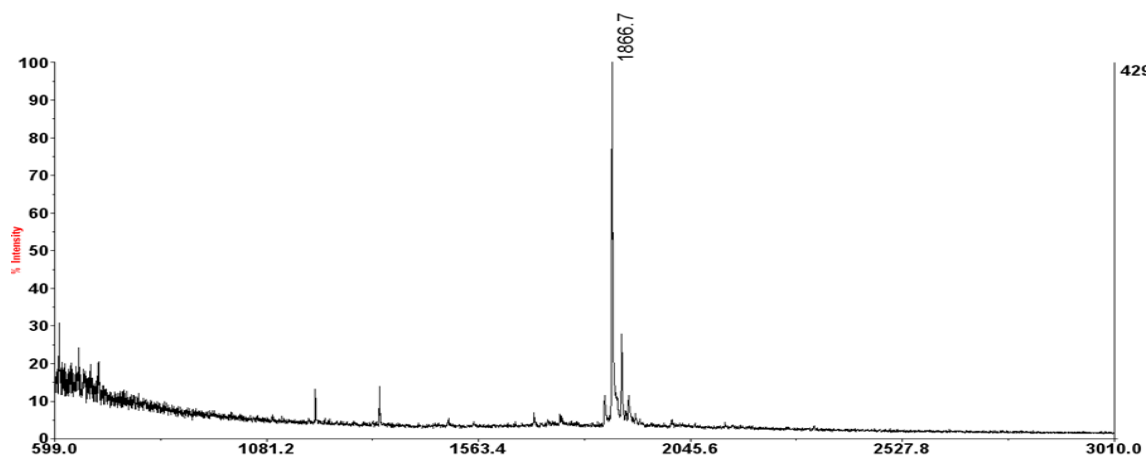
LPBA3 Predicted Mass: 1535.7, Mass Detected: 1536.8



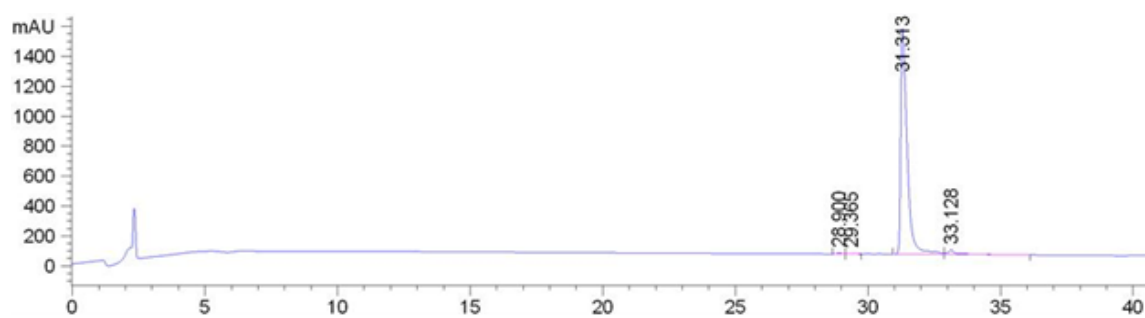
The Purity (90%) was determined by analytical HPLC employing a linear gradient of 10%-30% B in A in 30min at a flow rate of 0.2mL/min following a wash procedure.



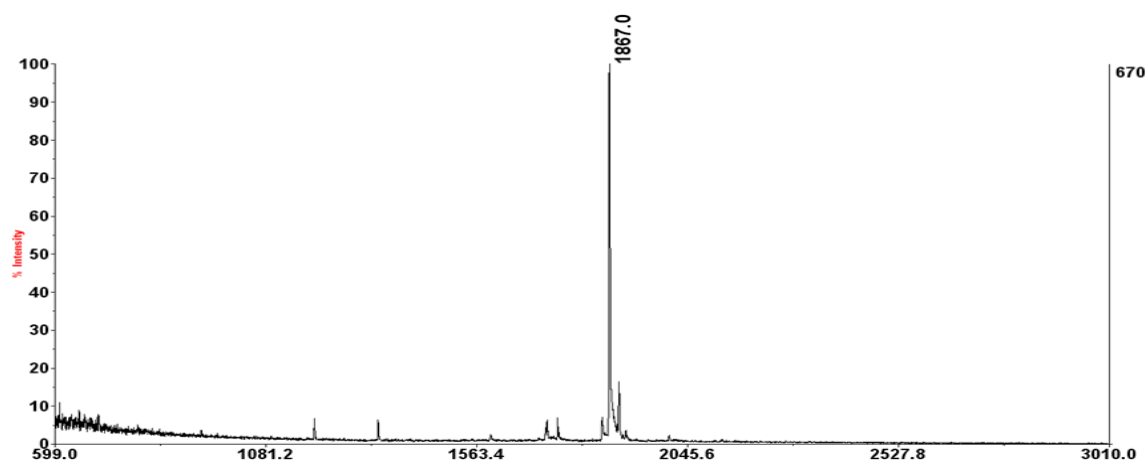
LPBA4 Predicted Mass: 1865.9, Mass Detected: 1866.6



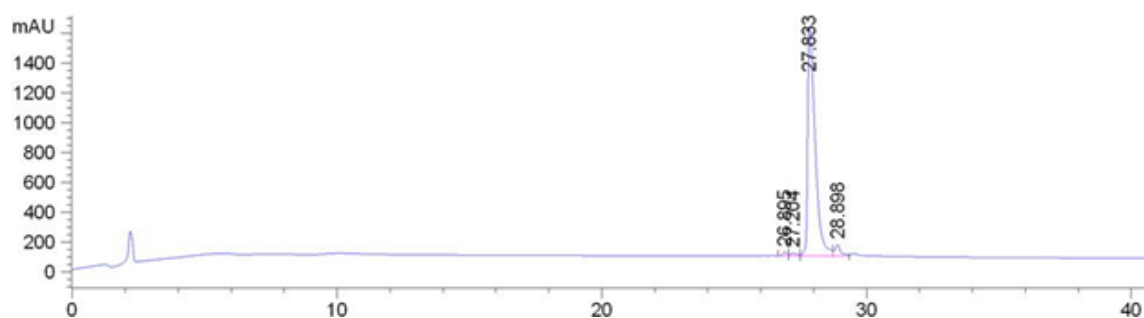
The Purity (96%) was determined by analytical HPLC employing a linear gradient of 10%-30% B in A in 30min at a flow rate of 0.2mL/min following a wash procedure.



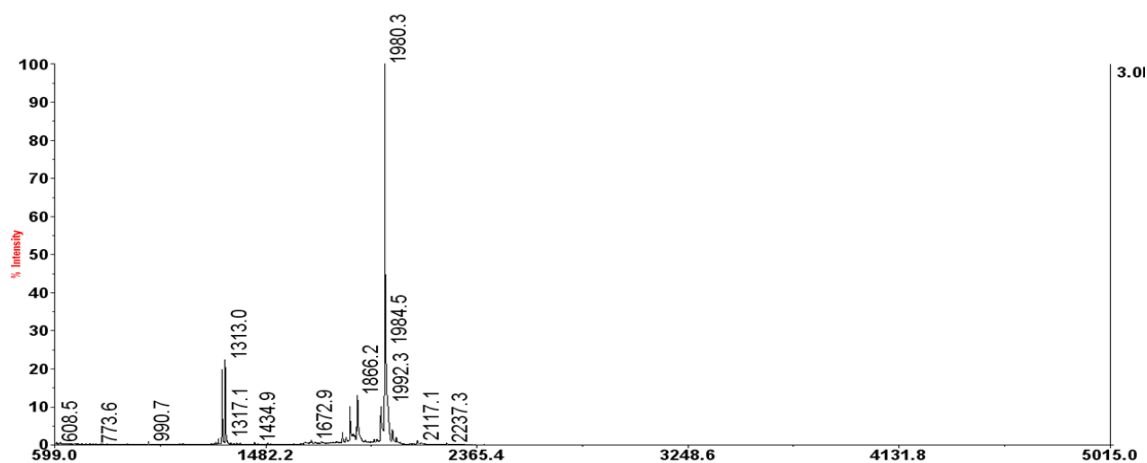
LPBA5 Predicted Mass: 1865.9, Mass Detected: 1867.0



The Purity (94%) was determined by analytical HPLC employing a linear gradient of 12%-30% B in A in 30min at a flow rate of 0.2mL/min following a wash procedure.



RPBA1 Predicted Mass: 1979.1, Mass Detected: 1980.2



The Purity (90%) was determined by analytical HPLC employing a linear gradient of 12%-30% B in A in 30min at a flow rate of 0.2mL/min following a wash procedure.

