Supplementary Information

Modelling the adsorption of miR-29a cancer biomarker on a graphene quantum dot

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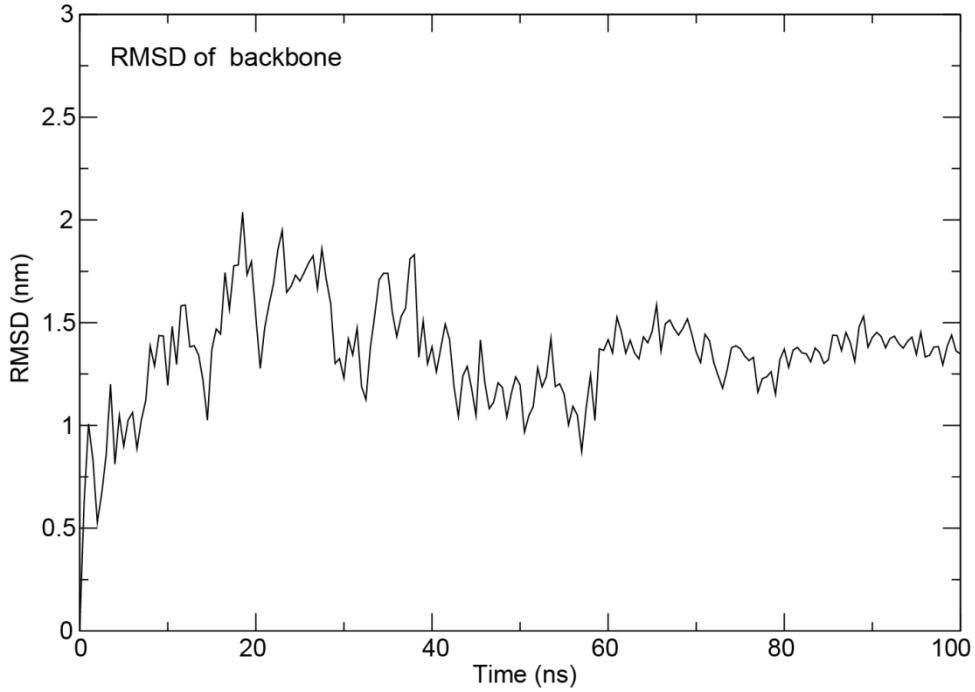

Figure S1 RMSD of miR-29a backbone in the step of 3D structure modelling

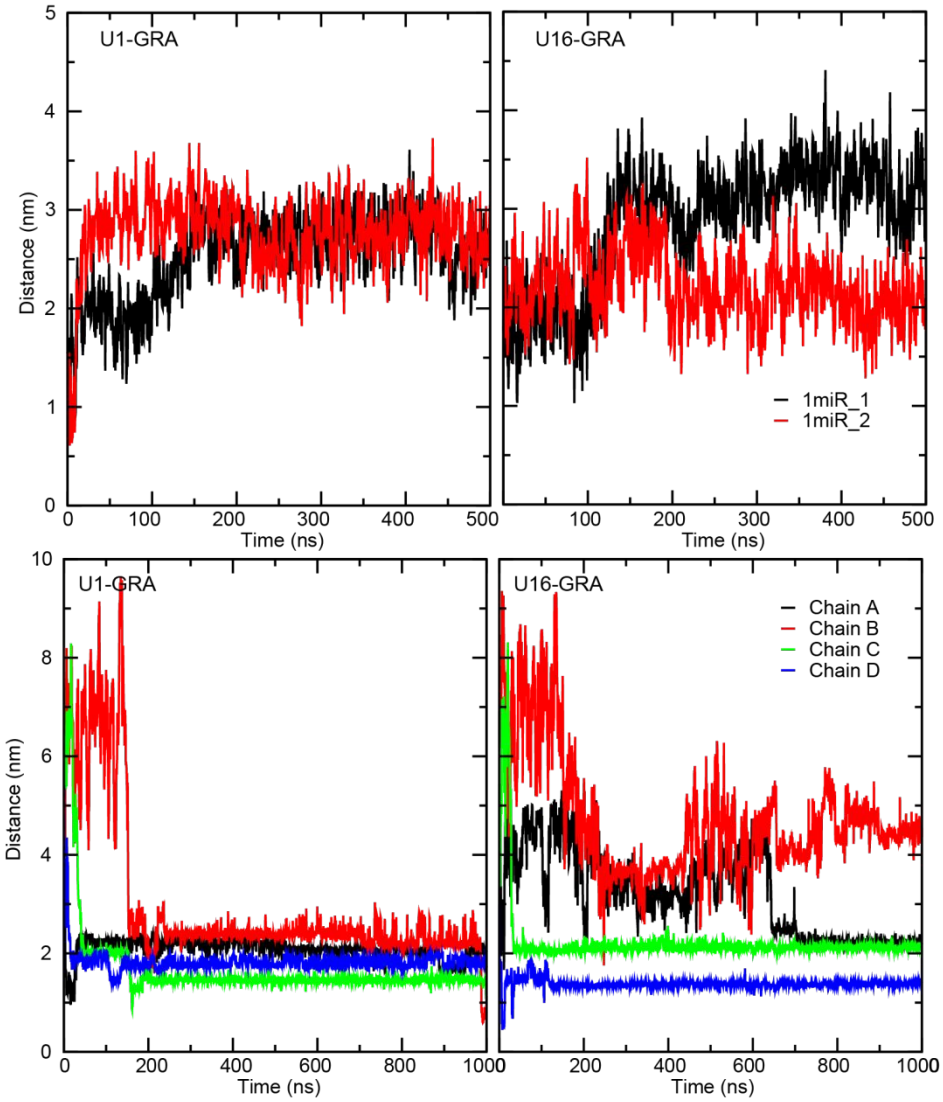

Figure S2 Distances of U1-GRA and U16-GRA in all systems. U1 is a representative of the 5' terminus.

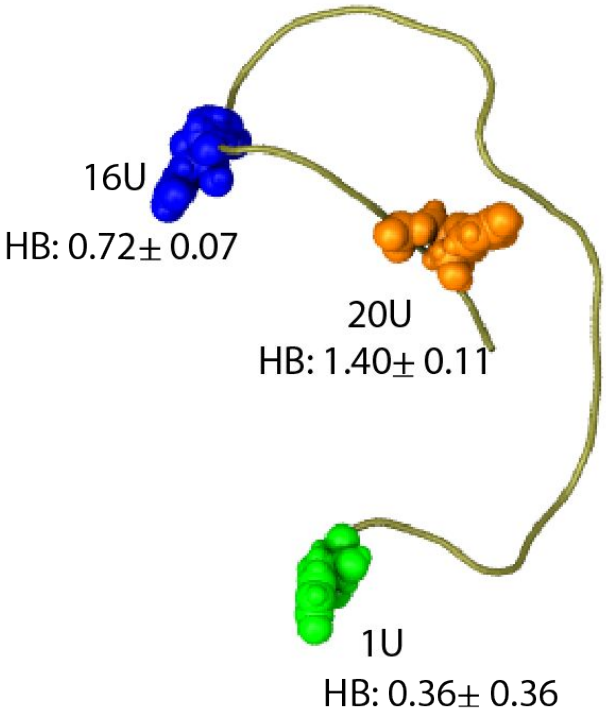

Figure S3 Structure of miR-29a molecules with uracil (U) at position 1, 16, and 20. The hydrogen bond between each uracil and its chain are also shown with standard deviation. U20 serves as a reference that can form hydrogen bonds within a chain.

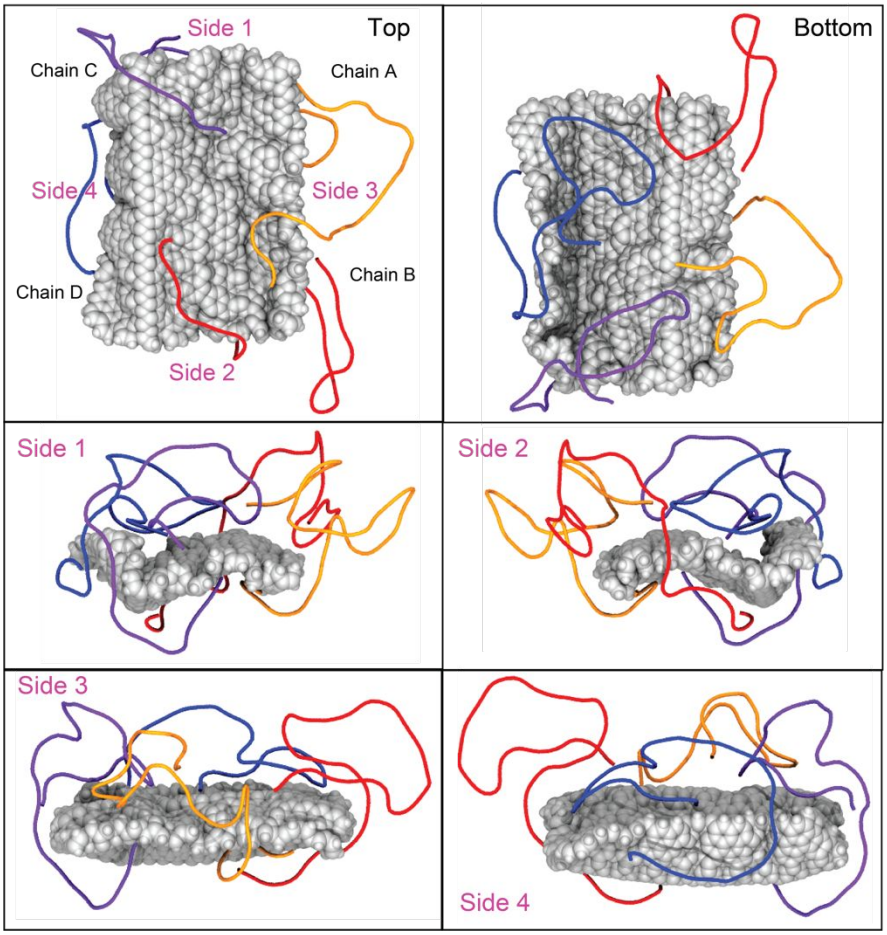

Figure S4 Conformations of four miR-29a chains on GRA surface in 4miR system.