

Figure S1: Scattergrams of dihedral angles of the G2:G6:G10:G13 (quartet 1) of *c-kit* promoter GQ observed in the 10 μ s long Simulation 1. (a) α/γ , (b) χ vs sugar pucker and (c) ϵ/ζ are shown. The pink and black asterisk, cyan and red triangle and blue circle in the figures indicate values observed in GQ A and B of X-ray crystal structure 3QXR, GQ A and B of X-ray crystal structure 4WO2 and model 1 of NMR structure 2O3M, respectively. The color bar indicates time in microseconds.

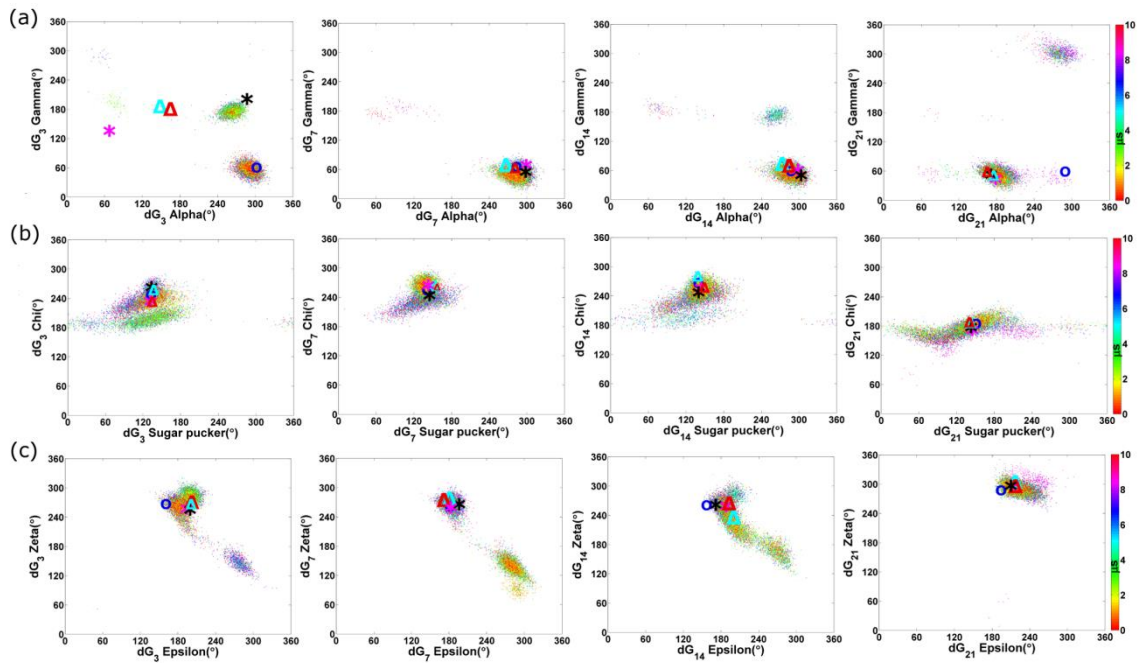


Figure S2: Scattergrams of dihedral angles of G3:G7:G21:G14 (quartet 2) of *c-kit* promoter GQ observed in the 10 μ s long Simulation 1. (a) α/γ , (b) χ vs sugar pucker and (c) ϵ/ζ are shown. The symbols are described in the legend to Figure S1.

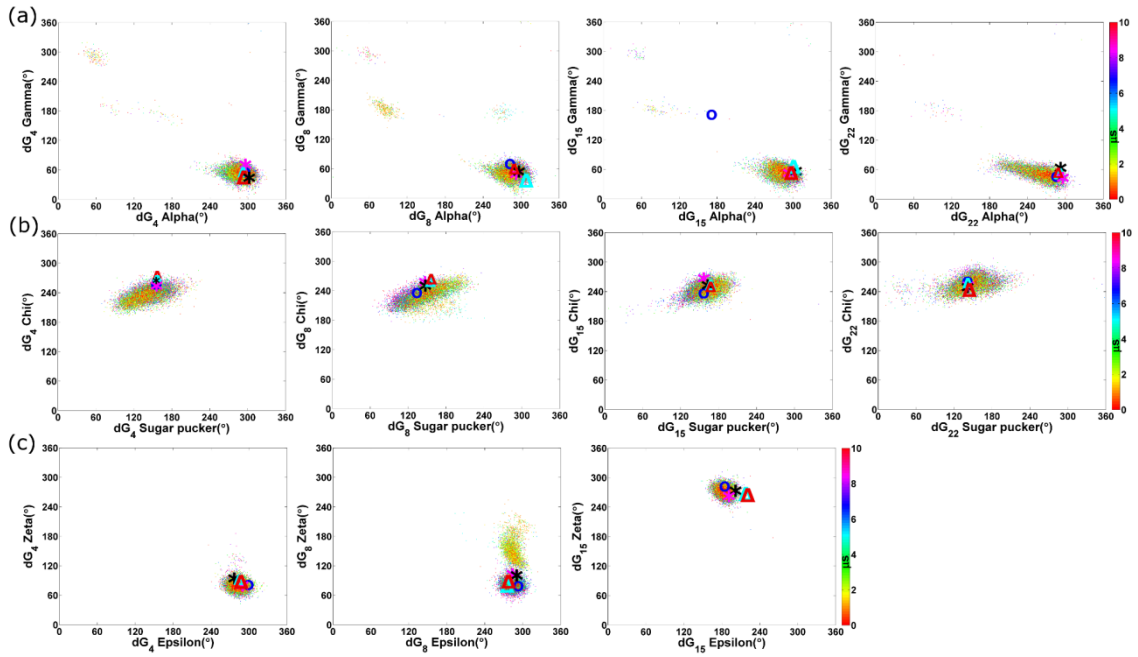


Figure S3: Scattergrams of dihedral angles of G4:G8:G22:G15 (quartet 3) of *c-kit* promoter GQ observed in the 10 μ s long Simulation 1. (a) α/γ , (b) χ vs sugar pucker and (c) ϵ/ζ are shown. The symbols are described in the legend to Figure S1.

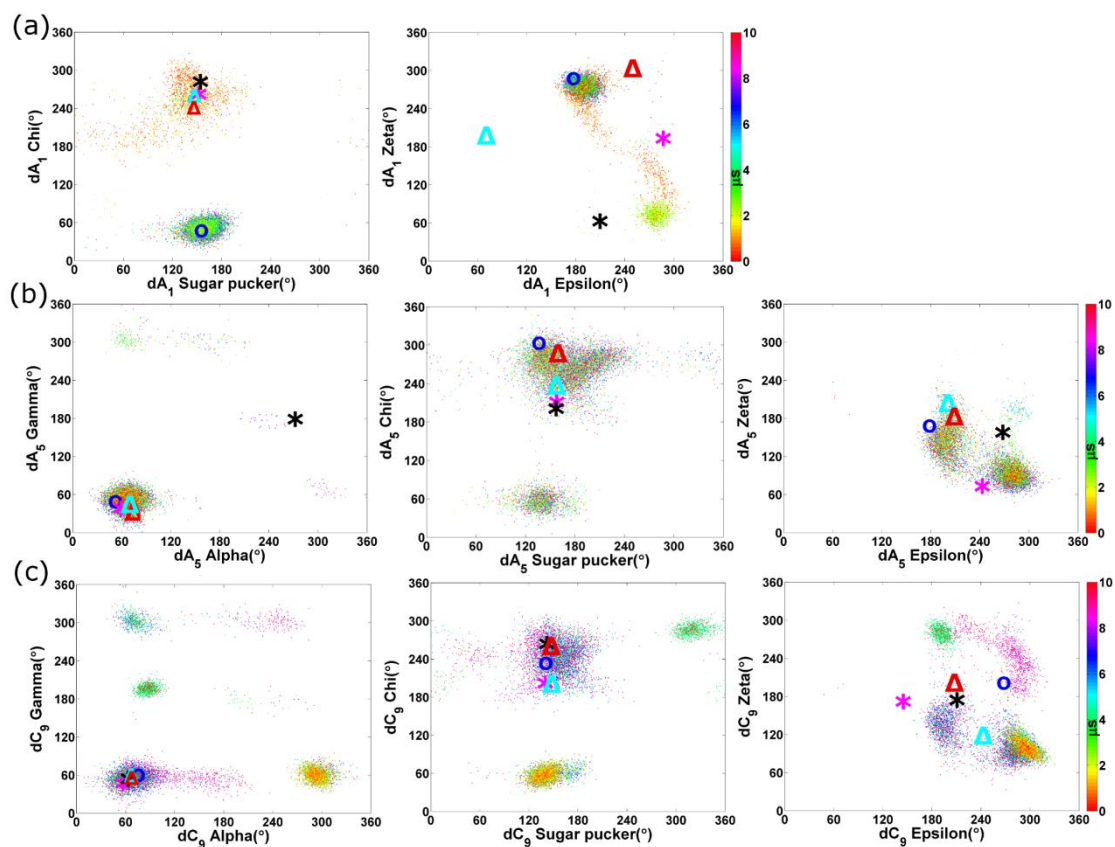


Figure S4: Scattergrams of dihedral angles of (a) terminal base A1 (b) single nucleotide propeller loop A5 and (c) single nucleotide propeller loop C9 of *c-kit* promoter GQ observed in the 10 μ s long Simulation 1. The α/γ , χ vs sugar pucker and ϵ/ζ are shown. The symbols are described in the legend to Figure S1.

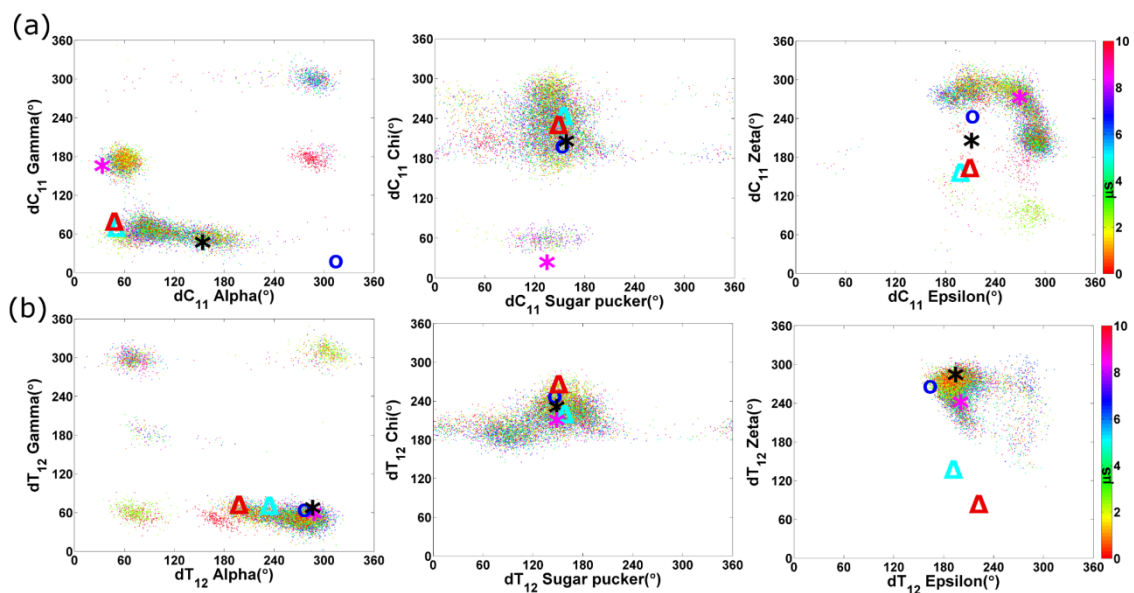


Figure S5: Scattergrams of dihedral angles of lateral loop bases (a) C11 and (b) T12 of *c-kit* promoter GQ observed in the 10 μ s long Simulation 1. The α/γ , χ vs sugar pucker and ϵ/ζ are shown. The symbols are described in the legend to Figure S1.

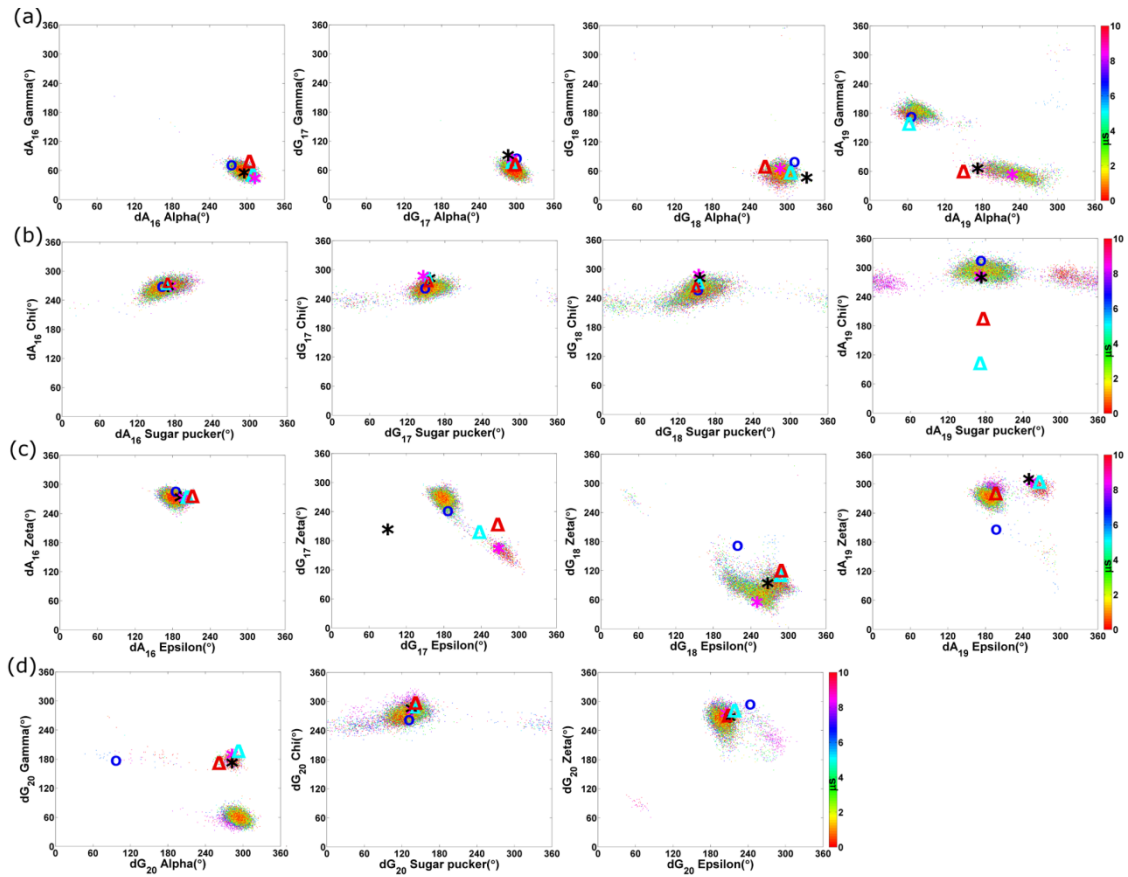


Figure S6: Scattergrams of dihedral angles of LP loop of of *c-kit* promoter GQ observed in the 10 μ s long Simulation 1. The (a) α/γ , (b) χ vs sugar pucker, (c) ϵ/ζ of the A16, G17, G18, and A19 are shown. (d) shows dihedral angles of G20. The symbols are described in the legend to Figure S1.