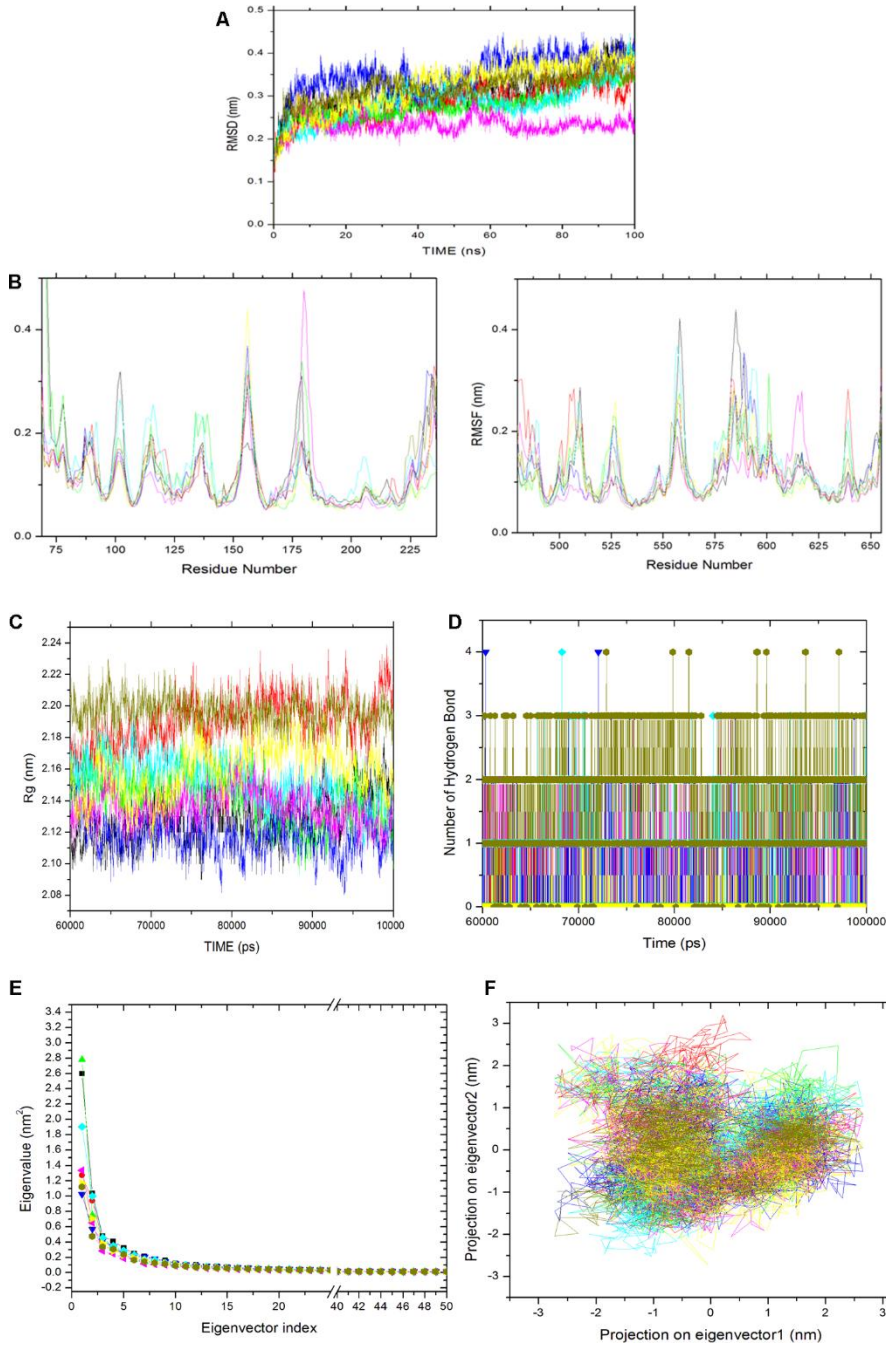
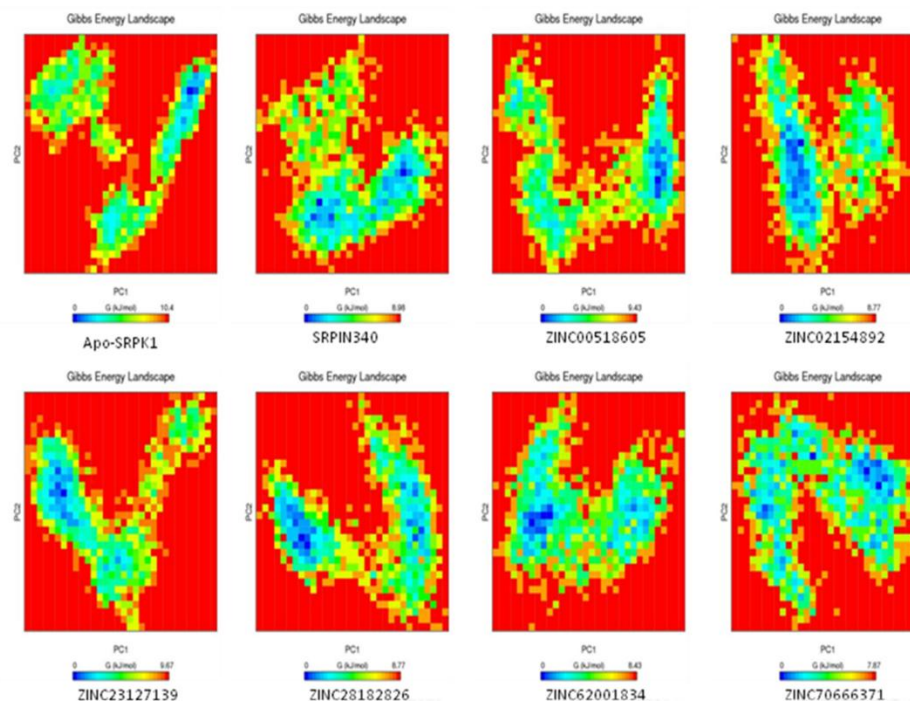


**SUPPLEMENTARY FIGURES**



**Supplementary Figure 1. Molecular dynamic simulations of apo SRPK1 and complexes. (A)** RMSD of C<sup>α</sup> backbone for SRPK1-Compound complexes as a function of time. **(B)** RMSF of residues during simulation. **(C)** Radius of gyration as a function of time **(D)** Number of hydrogen bonded interactions as a function of time. **(E)** Plot of eigen value vs. eigenvector index only first 50 out of 1000 are represented in the figure. **(F)** PCA scatter plot along first two principle components, PC1 and PC2 showing all atom fluctuations. Apo-SRPK1, SRPK1-SRPIN340, SRPK1-ZINC00518605 (C01), SRPK1-ZINC02154892 (C02), SRPK1-ZINC23127139 (C03), SRPK1-ZINC28182826 (C04), SRPK1-ZINC62001834 (C05), SRPK1-ZINC70666371 (C06) are shown in black, red, green, blue, cyan, pink, yellow, olive colors, respectively.



Supplementary Figure 2. The Gibbs energy landscape obtained during 100 ns MD simulations.