Figure S1. (A) Scattering profiles of RXR α full-length without DNA (green) and and RXR α -*Ramp2* DR1 (red). The profiles are arbitrary displaced in logarithmic scale for better visualization. **(B)** Distance distribution functions computed from the X-ray scattering patterns using the program GNOM.



Figure S2. In silico analysis of the RXR α NTD sequence composition and disorder predictions. (A) Domain organization of hRXR α together with the GlobPlot analysis (http://globplot.embl.de) of the primary sequence of hRXR α that indicates that the NTD is disordered. (B) Primary sequence of hRXR α . The NTD, DBD and LBD are shown in grey, blue and red respectively. (C) Unified view of the outputs of disorder predictors of the RXR α NTD-DBD and results of Hydrophobic Cluster Analysis (HCA) using the MeDor metaserver (Lieutaud et al., 2008). α -helices are drawn in red, -strands are represented by blue arrows. Predicted disordered regions are represented by bidirectional arrows of different colours for different predictor algorithms, IUPred (Dosztanyi et al., 2005), Globplot (Linding et al., 2003), DisEMBL (Linding et al., 2003), FoldIndex (Prilusky et al., 2005) and RONN (Yang et al., 2005). Code: red star: proline; black losange: glycine; square: threonine; dotted square: serine.

А



B

MSTQVNSSLTSPTGRGSMAAPSLHPSLGPGIGSPGQLHSPISTLSSPINGMGPPFSVISSPMGPHSMSVPTTPTLGFSTGSPQLSSPMNPVSSS EDIKPPLGLNGVLKVPAHPSGNMASFTKHICAICGDRSSGKHYGVYSCEGCKGFFKRTVRKDLTYTCRDNKDCLIDKRQRNRCQYCRYQKCLAM GMKREAVQEERQRGKDRNENEVESTSSANEDMPVERILEAELAVEPKTETYVEANMGLNPSSPNDPVTNICQAADKQLFTLVEWAKRIPHFSEL PLDDQVILLRAGWNELLIASFSHRSIAVKDGILLATGLHVHRNSAHSAGVGAIFDRVLTELVSKMRDMQMDKTELGCLRAIVLFNPDSKGLSNP AEVEALREKVYASLEAYCKHKYPEQPGRFAKLLLRLPALRSIGLKCLEHLFFFKLIGDTPIDTFLMEMLEAPHQMT

С

