



Supplementary Figure. A. HOP does not bind double stranded DNA. Gel shift carried out using pentaprobates (PP) 1–6 and full length HOP. Lanes marked with + and – indicate the presence or absence of HOP in that lane, respectively. The binding of the C-terminal zinc finger of GATA-1 to PP3 was used as a positive control. B. Western blot showing the expression of multiple point mutants of HOP, as used in transient transfection assays. An anti-myc antibody was used to detect the transfected myc-tagged HOP constructs. C. HOP mutants are well folded. One-dimensional ^1H NMR spectra of wild-type and mutant forms of HOP that display impaired repression activity. The narrow line shapes and good dispersion observed for the HOP single point mutants indicates that each mutant takes up a well-ordered structure that is very similar to that of the wild-type protein. An NMR spectrum was not recorded for R69G because it lies well outside the ordered region of the protein. D. Immunofluorescence data showing the distribution of HOP and HOP mutants (red, left), the position of the nucleus (blue, middle ,DAPI staining) and a merge (right). The data show that both wild-type and mutants exist predominantly in the nucleus with some additional protein in the cytoplasm.