



**Supplementary information, Figure S1** Comparison of H3R2 methylation for PHD<sub>UHRF1</sub> interaction.

Individual (A), and superimposed (B) ITC enthalpy plots for the binding of histone H3 peptides with methylations of R2 residue (syringe) to PHD<sub>UHRF1</sub> (cell) with the estimated binding affinity (K<sub>d</sub>) listed. ITC parameters and results are summarized in supplementary table S1. (C) *in vitro* binding assays using various biotinylated histone peptides containing the indicated modifications. Recombinant full length UHRF1 was incubated with histone peptides and immobilized onto the streptavidin sepharose beads. Bound proteins were subjected to SDS-PAGE and stained by Coomassie blue. (D) *in vitro* binding assays performed as in (C) using purified D347A/E348A mutation of UHRF1.