



**Figure 4 -- figure supplement 1. HDAC-EED interaction.**

- A.** RNA-seq data showing that HDAC transcript levels did not change in 2 month old Eed<sup>CKO</sup> cardiomyocytes. DE, Differential Expression; NS, not significant.
- B.** Immunoblotting for HDAC1, 2, and 5 proteins in adult cardiomyocytes isolated from hearts of control (WT) and Eed<sup>CKO</sup> (CKO).
- C.** HA-EED, pulled down with HA antibody, co-immunoprecipitated HDAC4/5/6/7/9. HA-EED and HDAC4-9 were co-transfected into 293T cells and harvested for immunoprecipitation assay 48 hours after transfection. Arrowheads indicate full-length HDAC proteins.
- D.** Flag-HDAC4/5/6/7/9, pulled down with Flag antibody, co-immunoprecipitated HA-EED. Arrowheads indicate full-length HDAC proteins.
- E.** HDAC5 occupancy measurement by ChIP-qPCR. HDAC5 occupancy of the indicated chromatin regions in isolated adult CMs from WT and Eed<sup>CKO</sup> mice at 2 months of age. Occupancy was measured by ChIP followed by quantitative PCR (ChIP-qPCR). Chromatin regions are named by the adjacent gene and the distance to the transcriptional start site (TSS).