



**Fig S4. NELF stabilizes Pol II pausing and transcription at promoters and enhancers, related to Figure 4.**

- (A) Heatmaps of Log<sub>2</sub> fold change of PRO-seq signal at genes ordered by gene length. Dashed lines represent poly A sites.
- (B) Heatmaps of Log<sub>2</sub> fold change of PRO-seq signal at enhancers.
- (C) Genome browser shot of PRO-seq signal for a long gene, related to Figure 4E.
- (D) MA plot of Log<sub>2</sub> fold change with significantly changed genes highlighted. Related to Figure 4F and 4H.
- (E) Transcription initiation and release rates from PRO-seq data at 0 mins of all genes vs. recovering TSS genes at 60 mins treatment.
- (F) NELF ChIP signal at all genes vs. recovering TSS genes at 60 mins treatment.
- (G) H3K4me<sub>3</sub> signal at all genes vs. recovering TSS genes at 60 mins treatment.
- (H) TT-seq signal at all genes vs. recovering TSS genes at 60 mins treatment.
- (I) Correlation between NELFB ChIP-seq signal and pause index at all expressed genes.
- (J) Correlation between NELFB ChIP-seq signal and gene body PRO-seq count at all expressed genes.