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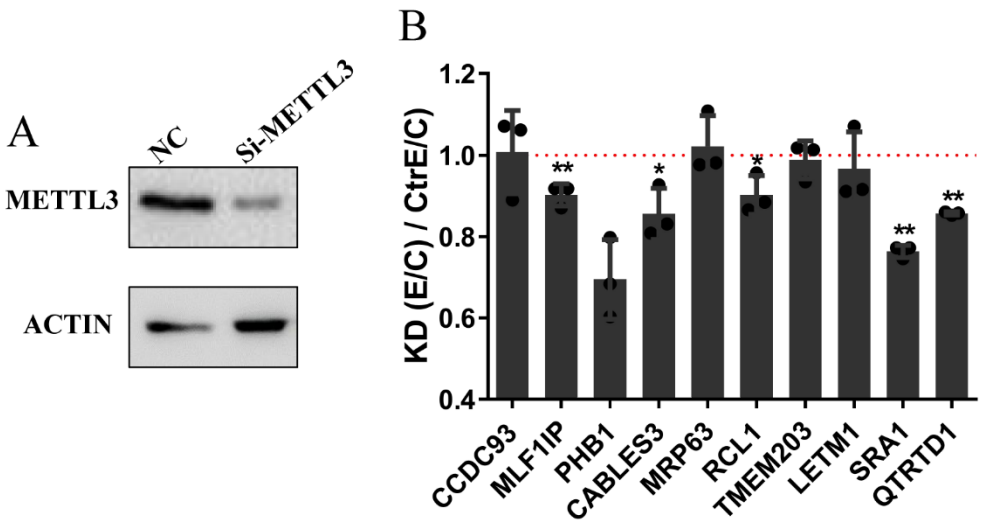
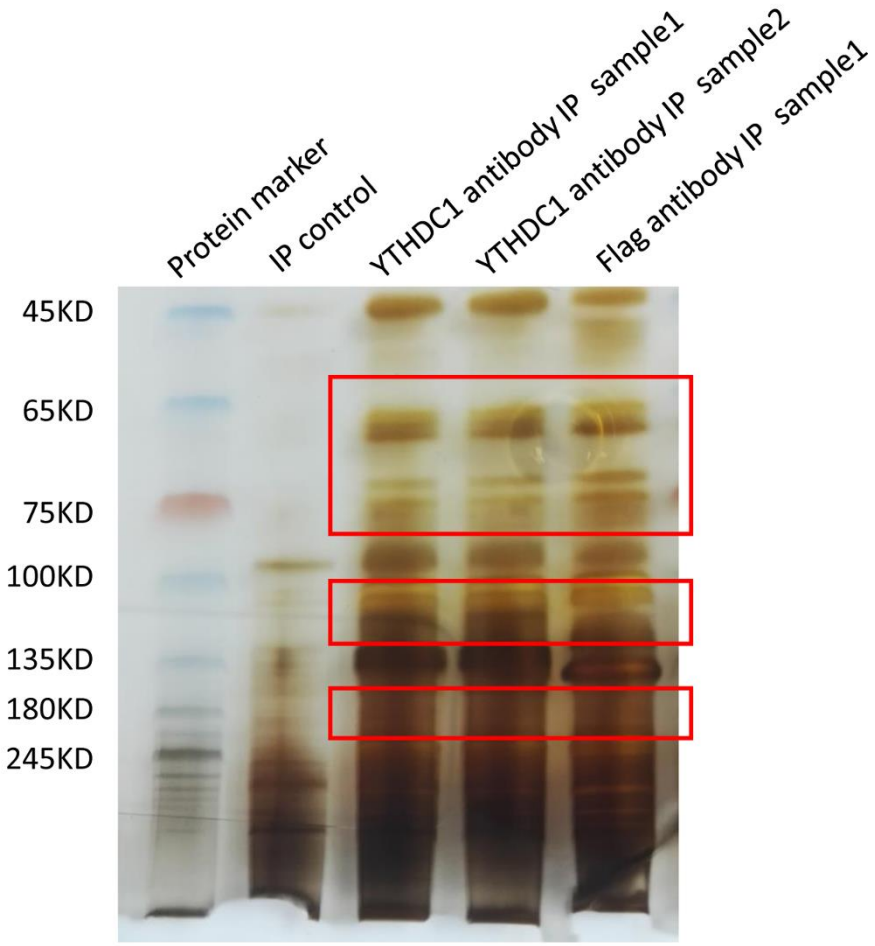
Appendix Figures



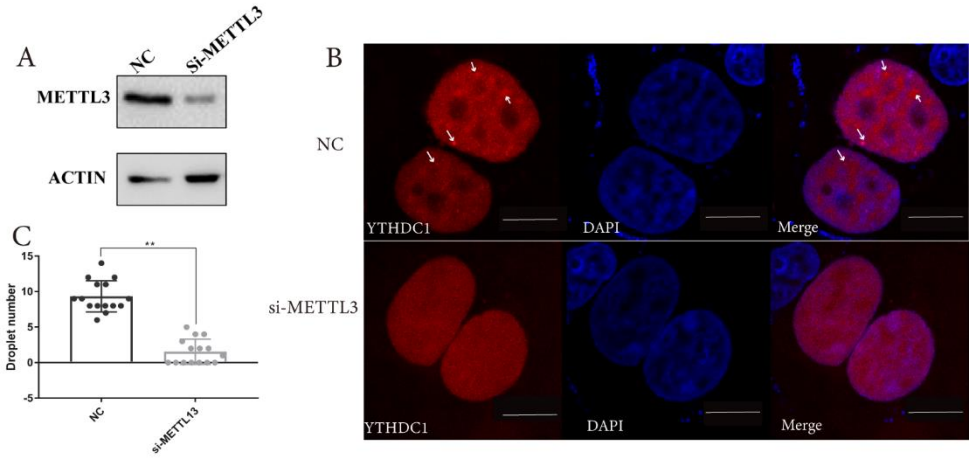
Appendix Figure S1. m^{6}A modification inhibits proximal APA sites processing.

A Western blot analysis of METTL3 knockdown in HEK293T cells.

B The qRT-PCR validation of APA switching. Nine genes with shortened 3'UTR after knockdown of YTHDC1 in HEK293T cells were chosen for validation as in Figure 2G. Eight of the nine genes tend to use shorter 3' UTRs after knockdown of METTL3. Data are presented as mean ± SEM of three biological replicates. *p<0.05, **p<0.01, the p values were obtained from unpaired two-tailed Student's t-test. Dotted line represent 1, which is threshold of APA change.



Appendix Figure S2. Sliver stain for YTHDC1 and FLAG co-IP products, related to Figure 4. The control IgG antibody pulled down few proteins, and YTHDC1 and FLAG antibody pulled down many same co-IP products, demonstrating the specificity of our co-IP assay.



Appendix Figure S3. YTHDC1 forms nuclear condensates in an m^{6}A-dependent manner.

A Western blot analysis of METTL3 in HEK293T knockdown samples.

B Fluorescence of DsRed-YTHDC1 in HEK293T cell. DsRed-YTHDC1 condensates were disrupted upon METTL3 knockdown in HEK 293T cell. The arrow represent YTHDC1 droplets. Scale bars 10 μm.

C Statistical results of condensates droplet number of DsRed-YTHDC1. DsRed-YTHDC1 condensates were significantly decrease upon depletion of METTL3. Data are presented as mean ± SEM of 15 cell. $^{**}p=2\times10^{-11}$, the *p* values were obtained from unpaired two-tailed Student's *t*-test.