

Figure S1. Expression levels of the indicated genes were analyzed by western blotting. (A) The knockdown and overexpression effect of CDC25C were demonstrated in H838 cells and H1299 cells, respectively. (B) The overexpression effect of STAT3 was demonstrated in H1299 cells. (C) The knockdown effect of ALKBH5 was demonstrated in A549 cells and H1299 cells. (D) Knockdown effects of YTHDF3 and YTHDF2 were demonstrated in H1299 cells. (E) YTHDF3 was knocked down while YTHDF2 was overexpressed in H1299 cells. (F) The knockdown effect of shYTHDF2 was demonstrated in H1299 cells. CDC25C, cytokinesis cyclin 25 homologous protein C; ALKBH5, alkB homolog 5 RNA demethylase; YTHDF, YTH N6-methyladenosine RNA binding protein; siRNA, small interfering RNA; sh-, short hairpin.

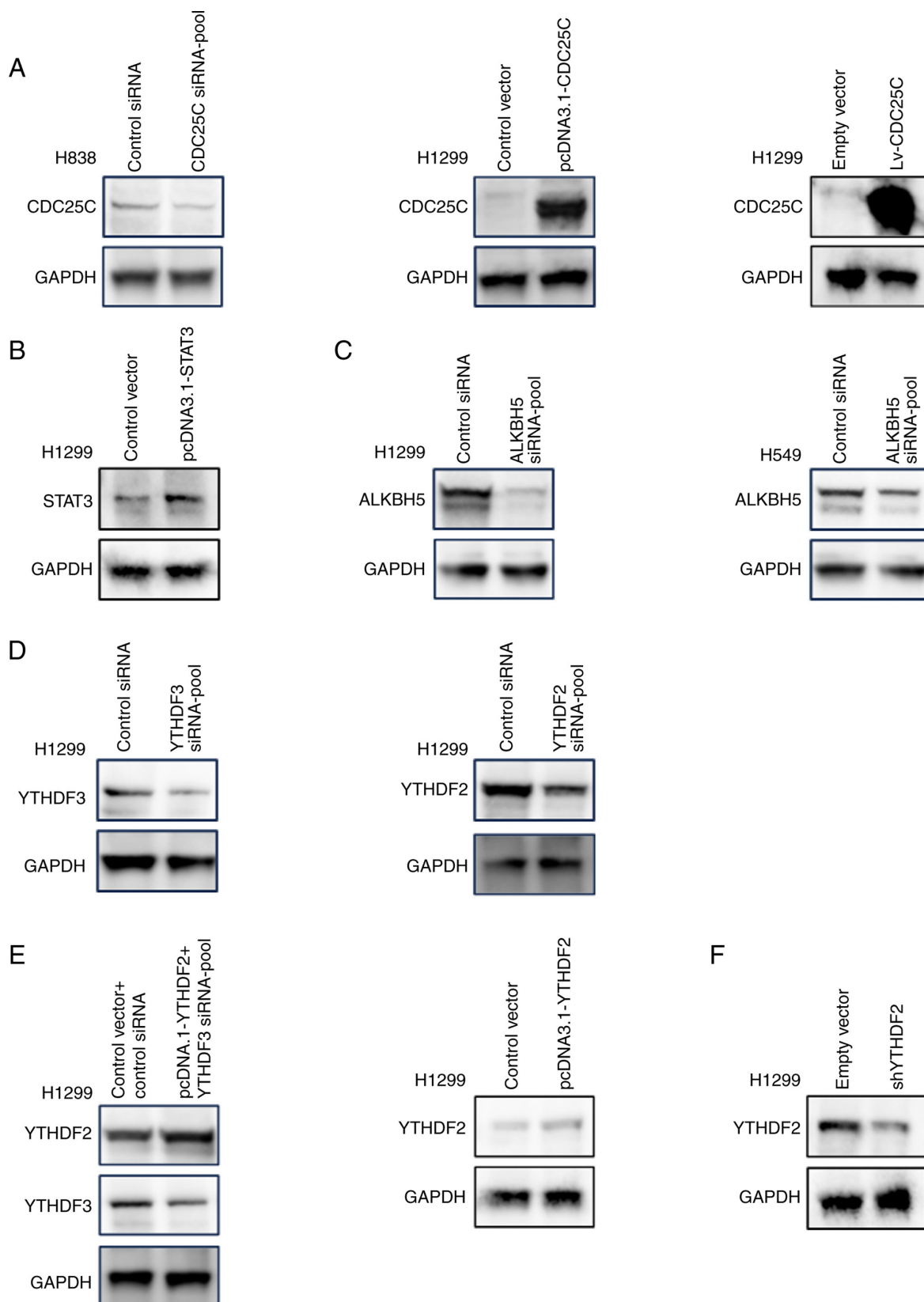


Figure S2. Characterization of CDC25C in non-small cell lung cancer. (A and B) Volcano plots showing the DEGs in tumor vs. normal samples. (C) DEGs in CDC25C high expression and low expression groups; (D) KEGG enriched pathways for the DEGs in the tumor and normal samples of the CDC25C low expression group. (E) KEGG enriched pathways for DEGs in the tumor and normal samples of the CDC25C high expression group. KEGG, Kyoto Encyclopedia of Genes and Genomes; CDC25C, cytokinesis cyclin 25 homologous protein C; DEGs, differentially expressed genes.

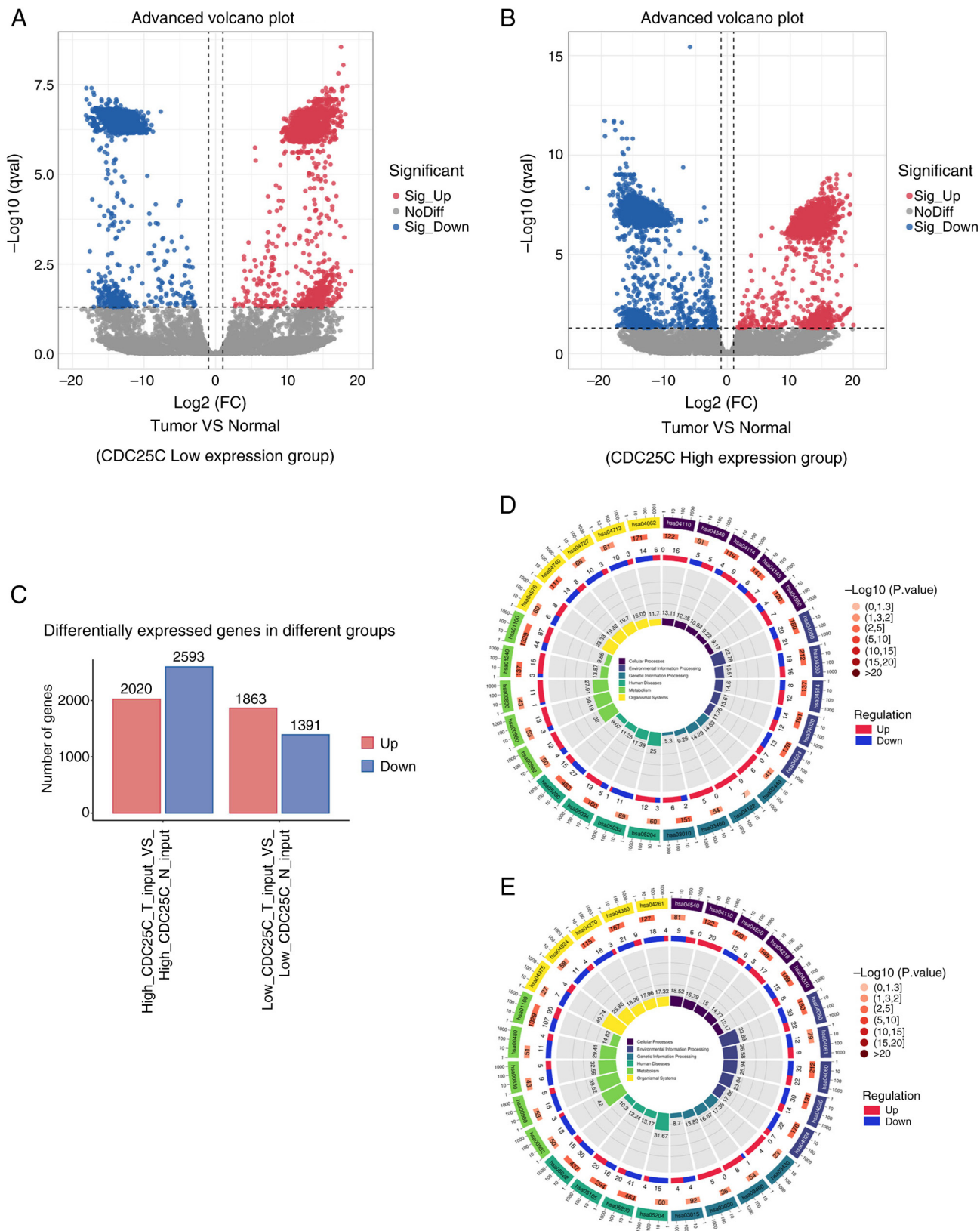
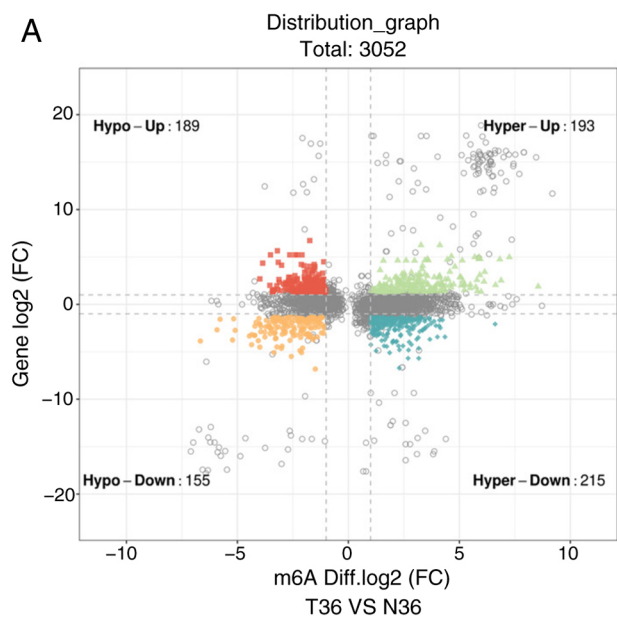
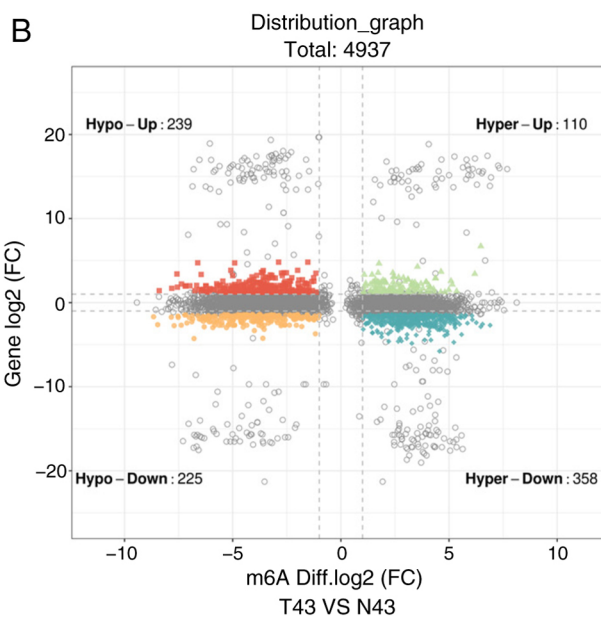


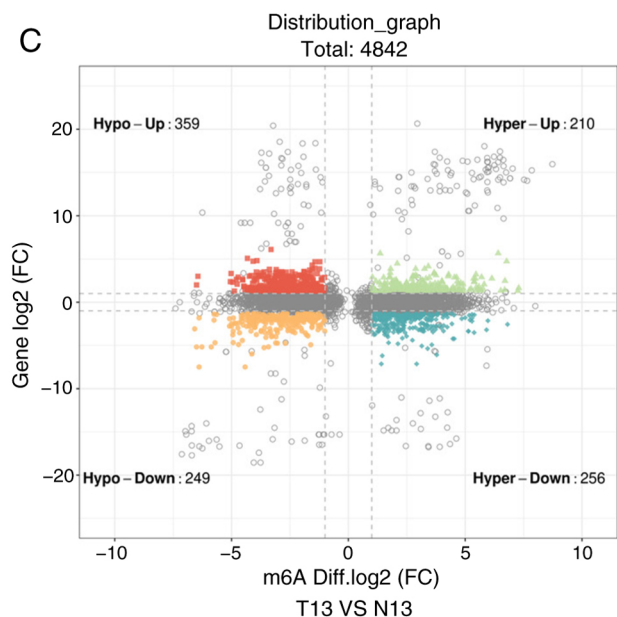
Figure S3. Conjoint analysis of methylated RNA immunoprecipitation-seq and RNA-seq data. Four-quadrant plots showing the distribution of peaks with significant changes in terms of both the m6A modification and RNA levels. (A and B) Four-quadrant plots of samples 36 and 43 of the CDC25C low expression group; (C and D) Four-quadrant plots of samples 13 and 25 of the CDC25C high-expression group. seq, sequencing; CDC25C, cytokinesis cyclin 25 homologous protein C; m6A, N6-methyladenosine.



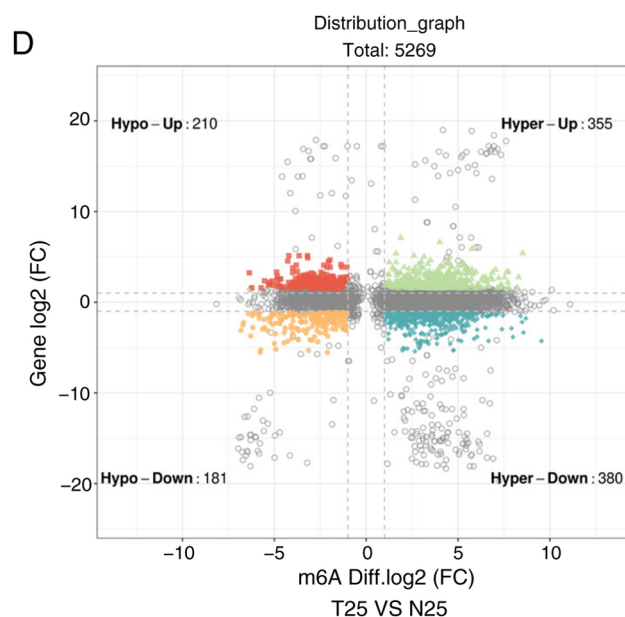
(CDC25C Low expression group)



(CDC25C Low expression group)



(CDC25C High expression group)



(CDC25C High expression group)

Figure S4. Binding of STAT3 to YTHDF1 or ALKBH5. (A) YTHDF1 promoter and (B) ALKBH5 promoter luciferase activity was detected by dual-luciferase assays. YTHDF, YTH N6-methyladenosine RNA binding protein; ns, not significant.

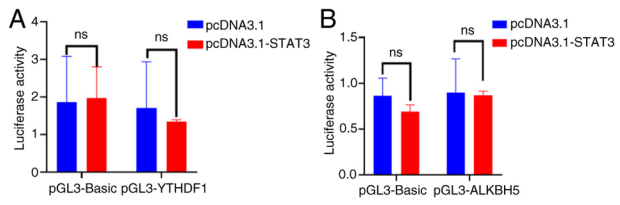


Figure S5. Characterization of YTH N6-methyladenosine RNA binding protein 2 in non-small cell lung cancer. (A) Volcano plot showing the RNA DEGs. (B and C) Kyoto Encyclopedia of Genes and Genomes enriched pathways for the DEGs. DEGs, differentially expressed genes.

