## Supplementary

Table S1 TCGA abbreviation for tumor name

| Abbreviation | Full name |
| :---: | :---: |
| ACC | Adrenocortical carcinoma |
| BLCA | Bladder Urothelial Carcinoma |
| BRCA | Breast invasive carcinoma |
| CESC | Cervical squamous cell carcinoma and endocervical adenocarcinoma |
| CHOL | Cholangiocarcinoma |
| COAD | Colon adenocarcinoma |
| DLBC | Lymphoid Neoplasm Diffuse Large B- cell Lymphoma |
| ESCA | Esophageal carcinoma |
| GBM | Glioblastoma multiforme |
| HNSC | Head and Neck squamous cell carcinoma |
| KICH | Kidney Chromophobe |
| KIRC | Kidney renal clear cell carcinoma |
| KIRP | Kidney renal papillary cell carcinoma |
| LAML | Acute Myeloid Leukemia |
| LGG | Brain Lower Grade Glioma |
| LIHC | Liver hepatocellular carcinoma |
| LUAD | Lung adenocarcinoma |
| LUSC | Lung squamous cell carcinoma |
| MESO | Mesothelioma |
| OV | Ovarian serous cystadenocarcinoma |
| PAAD | Pancreatic adenocarcinoma |
| PCPG | Pheochromocytoma and Paraganglioma |
| PRAD | Prostate adenocarcinoma |
| READ | Rectum adenocarcinoma |
| SARC | Sarcoma |
| SKCM | Skin Cutaneous Melanoma |
| STAD | Stomach adenocarcinoma |
| TGCT | Testicular Germ Cell Tumors |
| THCA | Thyroid carcinoma |
| THYM | Thymoma |
| UCEC | Uterine Corpus Endometrial Carcinoma |
| UCS | Uterine Carcinosarcoma |
| UVM | Uveal Melanoma |

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Figure S1 Consensus clustering for APA regulators in ccRCC. (A-D) Four heat maps exhibit the clustering matrix for APA regulators in ccRCC patients for $\mathrm{k}=3,4,5$, and 6 . The tighter and clearer the clusters are, the more optimal the cluster. (E-F) Delta area curve and tracking plot of consensus clustering for $\mathrm{k}=2-6$. (G) Principal component analysis of ccRCC patients' APA regulator expression profiles demonstrate two patient clusters. (H-I) The enriched Gene Ontology and Kyoto Encyclopedia of Genes and Genomes signaling pathways analysis of differentially expressed genes in cluster 1 and cluster 2 in ccRCC. APA, alternative polyadenylation; ccRCC, clear cell renal cell carcinoma; CDF, cumulative distribution function; PCA, Principal Component Analysis; PPAR, peroxisome proliferators-activated receptor.


[^0]:    TCGA, The Cancer Genome Atlas.

