Table S1

**Information on 12 Circular RNAs**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Gene symbol** | **ID in circBase** | **Log（FC）**  **R/C** | **FDR** | **SeqLength** | | **Expression**  **Style** |
| SPECC1 | hsa\_circ\_0000745 | 1.233 | 5.82E-04 | | 1580 | Up |
| MPP6 | hsa\_circ\_0001686 | 1.776 | 0.015 | | 1116 | Up |
| SLAIN2 | hsa\_circ\_0126525 | 2.113 | 0.003 | | 971 | Up |
| RANBP9 | hsa\_circ\_0001577 | 1.796 | 0.033 | | 1020 | Up |
| PHACTR4 | hsa\_circ\_0000038 | 3.839 | 0.032 | | 783 | Up |
| PAPPA2 | hsa\_circ\_0111274 | 3.201 | 3.28E-13 | | 1835 | Up |
| SLC8A1 | hsa\_circ\_0000994 | -6.412 | 7.43E-04 | | 1832 | Down |
| LPAR1 | hsa\_circ\_0087960 | -2.099 | 0.005 | | 226 | Down |
| MTCL1 | hsa\_circ\_0000825 | -1.425 | 0.008 | | 384 | Down |
| SCLT1 | hsa\_circ\_0001439 | -1.898 | 0.008 | | 396 | Down |
| DCBLD2 | hsa\_circ\_0066631 | -2.512 | 0.012 | | 366 | Down |
| HIPK2 | hsa\_circ\_0001756 | -1.169 | 0.041 | | 1084 | Down |

Table S2

**Univariate analysis of 46 RCC patients for Progression-free Survival for**

|  |  |  |  |
| --- | --- | --- | --- |
| Variables | P-value | Median PFS（months） | Mean PFS（months） |
| **Gender （Male /Female）** | 0.560 | 18/12 | 19.2/13.0 |
| **Age（≤60y VS＞60y）** | 0.434 | 18/16 | 19.9/16.6 |
| **Tumor size（≤7cm VS ＞7cm）** | 0.757 | 16/18 | 18.0/18.7 |
| **Fuhrman grade（I/II VS III/IV）** | **0.001\*** | 20/6 | 24.2/12.1 |
| **TNM stage（I/II VS III/IV）** | 0.058 | 22/16 | 27.0/16.1 |
| **Tumor thrombus（No / Yes）** | 0.827 | 18/18 | 18.6/19.1 |
| **Metastasis pre-operative（No / Yes）** | **0.014\*** | 20/6 | 23.9/14.1 |
| **Lymph node metastasis（No/ Yes）** | 0.758 | 18/16 | 18.4/19.7 |
| **cSLC8A1 （Low / High）** | **0.001\*** | 12/28 | 11.7/24.2 |

Table S3

**Univariate analysis 133 RCC patients for Progression-free Survival and Over Survival**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variables | PFS | |  | OS | |
| P-value | Median PFS（months） |  | P-value | Median OS  （months） |
| **Gender （Male /Female）** | 0.119 | 18/12 |  | 0.25 | 34/28 |
| **Age（≤60y VS＞60y）** | 0.563 | 18/16 |  | 0.422 | 34/32 |
| **Tumor size（≤7cm VS ＞7cm）** | 0.098 | 18/16 |  | **0.012\*** | 45/32 |
| **Fuhrman grade（I/II VS III/IV）** | **＜0.001\*** | 22/10 |  | **＜0.001\*** | 44/25 |
| **TNM stage（I/II VS III/IV）** | 0.249 | 16/18 |  | 0.134 | 48/32 |
| **Tumor thrombus（No / Yes）** | 0.216 | 14/19 |  | 0.617 | 32/37 |
| **Metastasis pre-operative（No / Yes）** | **＜0.001\*** | 20/9 |  | **＜0.001\*** | 45/24 |
| **Lymph node metastasis（No/ Yes）** | 0.245 | 18/12 |  | 0.178 | 34/27 |
| **FUS （Low / High）** | **0.002\*** | 20/11 |  | **0.001\*** | 44/28 |