**Supplementary Table S1**: Clinic-pathological characteristic and ciRS-7 expression in training and validation cohort

|  |  |  |
| --- | --- | --- |
|  | Training cohort | Validation cohort |
| Cases(n=153) | Low（n=77） | High(n=76) | *P c* | Cases(n=165) | Low(n=76) | High(n=89) | *P c* |
| Gender |  |  |  |  |  |  |  |  |
|  Male | 81 | 46 | 35 | 0.1250 | 69 | 28 | 41 | 0.3111 |
|  Female | 72 | 31 | 41 |  | 96 | 48 | 48 |  |
| Age |  |  |  |  |  |  |  |  |
|  ≤71a/66b | 81 | 40 | 41 | 0.9317 | 85 | 39 | 46 | 0.9623 |
|  >71a/66b | 72 | 37 | 35 |  | 80 | 37 | 43 |  |
| Tumor location |  |  |  |  |  |  |  |  |
|  Colon | 109 | 60 | 49 | 0.0971 | 100 | 51 | 49 | 0.1811 |
|  Rectum | 44 | 17 | 27 |  | 65 | 25 | 40 |  |
| Histological type |  |  |  |  |  |  |  |  |
|  Well/moderate | 140 | 71 | 69 | 0.2482 | 158 | 74 | 84 | 0.5163 |
|  Poor | 3 | 0 | 3 |  | 6 | 2 | 4 |  |
|  Missing | 10 | 6 | 4 |  | 1 | 0 | 1 |  |
| Pathological T category |  |  |  |  |  |  |  |  |
|  pT1-3 | 39 | 26 | 13 | **\*0.0293** | 132 | 66 | 66 | **\*0.0429** |
|  pT4 | 114 | 51 | 63 |  | 33 | 10 | 23 |  |
| Lymph node metastasis |  |  |  |  |  |  |  |  |
|  Negative | 98 | 49 | 49 | 0.9517 | 80 | 50 | 30 | **\*\*<0.0001** |
|  Positive | 55 | 28 | 27 |  | 78 | 23 | 55 |  |
| Missing |  |  |  |  | 7 | 3 | 4 |  |
| Distant metastasis |  |  |  |  |  |  |  |  |
|  Negative | 150 | 77 | 75 | 0.2389 | 127 | 65 | 62 | **\*0.0162** |
|  Positive | 3 | 0 | 3 |  | 38 | 11 | 27 |  |
| Stage |  |  |  |  |  |  |  |  |
| I | 19 | 14 | 5 | 0.0525 | 26 | 22 | 4 | **\*\*< 0.0001** |
| IIIIIIV | 84473 | 39240 | 45233 |  | 524938 | 271611 | 253327 |  |

a The median age of testing cohort is 71. b The median age of validation cohort is 66.

C Pearson chi-squared testing was used to compare the correlation between ciRS-7 expression and clinical variables. \**P*<0.05;\*\**P*<0.01.

**Supplementary Table 2**: Primers sequence for qRT-PCR assay

|  |  |
| --- | --- |
| Name | Sequence(5’→3’) |
| snRNA U6 | RT | AACGCTTCACGAATTTGCGT |
|  | Forward | CTCGCTTCGGCAGCACA |
|  | Reverse | AACGCTTCACGAATTTGCGT |
| GAPDH | Forward | TGTAGTTGAGGTCAATGAAGGG |
|  | Reverse | ACATCGCTCAGACACCATG |
| ciRS-7 | Forward | ACGTCTCCAGTGTGCTGA |
|  | Reverse | CTTGACACAGGTGCCATC |
| EGFR | Forward | CCCGTAATTATGTGGTGACAGA |
|  | Reverse | ACCAATACCTATTCCGTTACACA |
| RAF1 | Forward | TCCATAGAGACATGAAATCCAACA |
|  | Reverse | GGCCATCCAGAGGACAGA |

**Supplementary Table S3**: Univariate and multivariate analysis for predictors of overall survival in training and validation cohort

|  |  |  |
| --- | --- | --- |
| Training cohort | Univariate survival analysis | Multivariate survival analysis |
| HR | 95%CI | *P* | HR | 95%CI | *P* |
| Gender(male vs female) | 1.6282 | 0.8798-3.0132 | 0.1225 |  |  |  |
| Age(>71) | 1.2358 | 0.6718-2.2734 | 0.4981 |  |  |  |
| Tumor location (Proximal vs Distal) | 0.7514 | 0.3691-1.5296 | 0.4330 |  |  |  |
| Histological type (poor vs well/mod) | 1.3174 | 0.1808-9.5982 | 0.7867 |  |  |  |
| T classification (pT4) | 2.9356 | 1.1503-7.4916 | **\*0.0250** | 2.3814 | 0.9236 - 6.1399 | 0.0740 |
| Node involvement (present) | 2.1771 | 1.1781-4.0231 | **\*0.0135** | 1.8559 | 0.9767 - 3.5266 | 0.0603 |
| Distant metastasis (present) | 16.026 | 4.6284-55.488 | **\*\*<0.0001** | 8.1351 | 2.2173 - 29.847 | **\*\*0.0017** |
| ciRS-7 expression (high) | 2.0697 | 1.0977-3.9023 | **\*0.0253** | 1.8689 | 0.9638 - 3.6240 | **0.0656** |
| Validation cohort | Univariate survival analysis | Multivariate survival analysis |
| HR | 95%CI | *P* | HR | 95%CI | *P* |
| Gender(male) | 0.9902 | 0.5067-1.9353 | 0.9771 |  |  |  |
| Age(>66) | 1.7456 | 0.8912-3.4194 | 0.1044 |  |  |  |
| Tumor location (Proximal vs Distal) | 2.3906 | 1.2223-4.6756 | **\*0.0109** | 1.8523 | 0.8480-4.0461 | 0.1220 |
| Histological type (poor vs well/mod) | 11.037 | 3.7602-32.396 | **\*\*<0.0001** | 4.2943 | 1.1974-15.402 | **\*0.0253** |
| T classification (pT4) | 4.1788 | 2.1457-8.1385 | **\*\*<0.0001** | 2.9764 | 1.4101-6.2823 | **\*\*0.0042** |
| Node involvement (present) | 2.7241 | 1.2990-5.7127 | **\*\*0.0083** | 1.0329 | 0.4251-2.5095 | 0.9430 |
| Distant metastasis (present) | 5.0373 | 2.5943-9.7808 | **\*\*0.0001** | 3.0271 | 1.2495-7.3337 | **\*0.0142** |
| ciRS-7 expression (high) | 2.6862 | 1.2570-5.7405 | **\*0.0108** | 2.7262 | 1.0879-6.8315 | **\*0.0324** |

HR: Hazard ratio; \**P*<0.05;\*\**P*<0.01.