

Supplementary Table S1.**Clinicopathological characteristics of patients involved in the study.**

| Characteristics | MTAB-6134(n=288) | PACA-AU(n=92) | PACA-CA(n=182) | TCGA(n=141) |
|---------------------------|-------------------------|----------------------|-----------------------|--------------------|
| Age at diagnosis | | | | |
| ≤60 | NA | 27 | 55 | 46 |
| >60 | NA | 64 | 109 | 95 |
| NA | NA | 1 | 18 | |
| Gender | | | | |
| Male | 166 | 48 | 100 | 75 |
| Female | 122 | 44 | 82 | 66 |
| Histological grade | | | | |
| G1 | 110 | 1 | 16 | 18 |
| G2 | 130 | 48 | 42 | 82 |
| G3 | 48 | 25 | 27 | 40 |
| G4 | 0 | 2 | 5 | 1 |
| NA | 0 | 16 | 92 | 0 |
| T Stage | | | | |
| T1 | 12 | 2 | NA | 4 |
| T2 | 39 | 10 | NA | 13 |
| T3 | 237 | 64 | NA | 120 |
| T4 | 0 | 2 | NA | 3 |
| NA | 0 | 14 | NA | 1 |
| N stage | | | | |
| N0 | 72 | 26 | NA | 35 |
| N1 | 216 | 51 | NA | 105 |
| NA | 0 | 15 | NA | 1 |
| Residual tumor | | | | |
| R0 | 235 | NA | NA | 78 |
| R1 | 49 | NA | NA | 47 |
| R2 | 0 | NA | NA | 5 |
| NA | 4 | NA | NA | 11 |

NA: not available

Supplementary Table S2**Quantitative real-time PCR primer sequences**

| Name | Primer (5'-3') |
|---------------|---|
| DCBLD2 | F:GCTCCAACCTCCTCCTTCTCC R:GTGTCCACATCCATCACCTTGCTG |
| GSDMD | F:GAGTGTGGCCTAGAGCTGG R:GGCTCAGTCCTGATAGCAGTG |
| PLOD2 | F:CATGGACACAGGATAATGGCTG R:AGGGGTTGGTTGCTCAATAAAAA |
| PMAIP1 | F:GCTGGAAGTCGAGTGTGCTA R:CCGCCAGTCTAATCACAGG |
| GAPDH | F:GCACCGTCAAGGCTGAGAAC R:TGGTGAAGACGCCAGTGGA |

Supplementary Table S3.**The C-index of prognostic signatures in six independent datasets.**

| Dataset | 4-gene signature | Zhou-6 | Tian-3 | Zhou-3 |
|------------------|-------------------------|------------------------|------------------------|------------------------|
| GSE21501 | 0.59(0.52-0.67) | 0.49(0.41-0.56) | 0.55(0.47-0.62) | 0.51(0.43-0.59) |
| GSE71729 | 0.59(0.52-0.66) | 0.51(0.44-0.58) | 0.54(0.48-0.61) | 0.54(0.46-0.61) |
| MTAB-6134 | 0.65(0.61-0.69) | 0.60(0.55-0.65) | 0.59(0.55-0.64) | 0.58(0.53-0.62) |
| PACA-AU | 0.69(0.62-0.75) | 0.64(0.56-0.72) | 0.63(0.55-0.70) | - |
| PACA-CA | 0.59(0.54-0.65) | 0.56(0.51-0.61) | 0.54(0.49-0.59) | 0.59(0.54-0.64) |
| TCGA | 0.62(0.56-0.68) | 0.66(0.60-0.73) | 0.67(0.60-0.73) | 0.61(0.55-0.67) |