

SUPPLEMENTARY TABLES

Supplementary Table 1. The correlation between the expression of RPL22L1 in LUAD and clinical features.

| Characteristics | Overall | Low expression of RPL22L1 | High expression of RPL22L1 | p-value | Statistic | Method |
|--------------------------------------|------------|---------------------------|----------------------------|---------|-----------|------------|
| n | 539 | 269 | 270 | | | |
| Pathologic T stage, n (%) | | | | 0.136 | 2.225 | Chisq test |
| T1&T2 | 468(87.3%) | 238 (44.4%) | 230 (42.9%) | | | |
| T3&T4 | 68(12.7%) | 28 (5.2%) | 40 (7.5%) | | | |
| Pathologic N stage, n (%) | | | | 0.263 | 1.253 | Chisq test |
| N0 | 350(66.9%) | 176 (33.7%) | 174 (33.3%) | | | |
| N1&N2&N3 | 173(33.1%) | 78 (14.9%) | 95 (18.2%) | | | |
| Pathologic stage, n (%) | | | | 0.011 | 6.491 | Chisq test |
| Stage I&Stage II | 421(79.3%) | 222 (41.8%) | 199 (37.5%) | | | |
| Stage III&Stage IV | 110(20.7%) | 43 (8.1%) | 67 (12.6%) | | | |
| Gender, n (%) | | | | 0.001 | 10.511 | Chisq test |
| Female | 289(53.6%) | 163 (30.2%) | 126 (23.4%) | | | |
| Male | 250(46.4%) | 106 (19.7%) | 144 (26.7%) | | | |
| Age, n (%) | | | | 0.860 | 0.031 | Chisq test |
| <= 65 | 257(49.4%) | 127 (24.4%) | 130 (25%) | | | |
| > 65 | 263(50.6%) | 132 (25.4%) | 131 (25.2%) | | | |
| Anatomic neoplasm subdivision, n (%) | | | | 0.218 | 1.519 | Chisq test |
| Left | 207(39.5%) | 110 (21%) | 97 (18.5%) | | | |
| Right | 317(60.5%) | 151 (28.8%) | 166 (31.7%) | | | |

Supplementary Table 2. Abbreviations for 33 types of tumors in TCGA.

| Full name of tumors | Abbreviation of tumors |
|--|-------------------------------|
| Adrenocortical carcinoma | ACC |
| Bladder urothelial carcinoma | BLCA |
| Breast invasive carcinoma | BRCA |
| Cervical squamous cell carcinoma and endocervical adenocarcinoma | CESC |
| Cholangiocarcinoma | CHOL |
| Colon adenocarcinoma | COAD |
| Lymphoid neoplasm diffuse large B-cell lymphoma | DLBC |
| Esophageal carcinoma | ESCA |
| Glioblastoma multiforme | GBM |
| Head and neck squamous cell carcinoma | HNSC |
| Kidney chromophobe | KICH |
| Kidney renal clear cell carcinoma | KIRC |
| Kidney renal papillary cell carcinoma | KIRP |
| Acute myeloid leukemia | LAML |
| Brain lower grade glioma | LGG |
| Liver hepatocellular carcinoma | LIHC |
| Lung adenocarcinoma | LUAD |
| Lung squamous cell carcinoma | LUSC |
| Mesothelioma | MESO |
| Ovarian serous cystadenocarcinoma | OV |
| Pancreatic adenocarcinoma | PAAD |
| Pheochromocytoma and paraganglioma | PCPG |
| Prostate adenocarcinoma | PRAD |
| Rectum adenocarcinoma | READ |
| Sarcoma | SARC |
| Skin cutaneous melanoma | SKCM |
| Stomach adenocarcinoma | STAD |
| Testicular germ cell tumors | TGCT |
| Thyroid carcinoma | THCA |
| Thymoma | THYM |
| Uterine corpus endometrial carcinoma | UCEC |
| Uterine carcinosarcoma | UCS |
| Uveal melanoma | UVM |

Supplementary Table 3. The expression of RPL22L1 in LUAD is related to clinical features (logical analysis).

| Characteristics | Total (N) | OR (95% CI) | P-value |
|--|------------------|-----------------------|----------------|
| Pathologic T stage (T3&T4 vs. T1&T2) | 536 | 1.478 (0.883 - 2.476) | 0.137 |
| Pathologic N stage (N1&N2&N3 vs. N0) | 523 | 1.232 (0.855 - 1.776) | 0.263 |
| Pathologic stage (Stage III&Stage IV vs. Stage I&Stage II) | 531 | 1.738 (1.133 - 2.667) | 0.011 |
| Gender (Male vs. Female) | 539 | 1.757 (1.248 - 2.474) | 0.001 |
| Age (> 65 vs. <= 65) | 520 | 0.970 (0.687 - 1.367) | 0.86 |
| Anatomic neoplasm subdivision (Right vs. Left) | 524 | 1.247 (0.878 - 1.771) | 0.218 |

Supplementary Table 4. Univariate and multivariate analysis (Cox regression) of clinical features of LUAD and DSS.

| Characteristics | Total (N) | Univariate analysis | | Multivariate analysis | |
|--|------------------|----------------------------|----------------|------------------------------|----------------|
| | | HR (95% CI) | P-value | HR (95% CI) | P-value |
| Pathologic T stage (T1&T2 vs. T3&T4) | 527 | 2.352 (1.614 - 3.426) | < 0.001 | 1.663 (1.087 - 2.546) | 0.019 |
| Pathologic N stage (N0 vs. N1&N2&N3) | 514 | 2.547 (1.904 - 3.407) | < 0.001 | 2.153 (1.524 - 3.041) | < 0.001 |
| Pathologic stage (Stage I&Stage II vs. Stage III&Stage IV) | 522 | 2.710 (1.994 - 3.685) | < 0.001 | 1.403 (0.933 - 2.109) | 0.103 |
| Gender (Female vs. Male) | 530 | 1.087 (0.816 - 1.448) | 0.569 | | |
| Age (<= 65 vs. > 65) | 520 | 1.216 (0.910 - 1.625) | 0.186 | | |
| Anatomic neoplasm subdivision (Left vs. Right) | 516 | 1.040 (0.772 - 1.401) | 0.797 | | |
| RPL22L1 (Low vs. High) | 530 | 1.521 (1.132 - 2.044) | 0.005 | 1.542 (1.138 - 2.090) | 0.005 |