## Supplementary Tables

**Supplementary Table 1. Survival analysis of laminin gene family in GSE21501 PDAC patients.**

| Variables | | MST (months) | *P* value | HR (95%CI)[*] | *P* value |
|---|---|---|---|---|---|
| LAMA1 | low | 19 | 0.425 | | 0.435 |
| | high | 18 | | 1.21(0.75-1.97) | |
| LAMA2 | low | 17 | 0.180 | | 0.192 |
| | high | 19 | | 0.72(0.44-1.18) | |
| LAMA3 | low | 21 | **0.002** | | **0.003** |
| | high | 14 | | **2.18(1.30-3.65)** | |
| LAMA4 | low | 21 | 0.057 | | 0.065 |
| | high | 14 | | 1,59(0.97-2.59) | |
| LAMA5 | low | 21 | 0.051 | | 0.059 |
| | high | 17 | | 1.61(0.98-2.64) | |
| LAMB1 | low | 18 | 0.746 | | 0.751 |
| | high | 19 | | 1.08(0.66-1.77) | |
| LAMB2 | low | 18 | 0.439 | | 0.449 |
| | high | 18 | | 1.21(0.74-1.96) | |
| LAMB3 | low | 21 | 0.401 | | 0.411 |
| | high | 17 | | 1.23(0.75-2.00) | |
| LAMB4 | low | 19 | 0.557 | | 0.566 |
| | high | 17 | | 1.15(0.71-1.87) | |
| LAMC1 | low | 15 | 0.596 | | 0.604 |
| | high | 19 | | 0.88(0.54-1.43) | |
| LAMC2 | low | 23 | **0.017** | | **0.021** |
| | high | 15 | | **1.80(1.09-2.97)** | |
| LAMC3 | low | 15 | 0.264 | | 0.276 |
| | high | 21 | | 0.76(0.47-1.24) | |
| LAMA4-3y | low | 19 | **0.005** | | **0.007** |
| | high | 13 | | **2.04 (1.21-3.42)** | |

Notes: *HR for the univariate Cox proportional hazards regression analysis.
Abbreviations: PDAC, pancreatic ductal adenocarcinoma; MST, median survival time; HR, hazard ratio; CI, confidence interval.

**Supplementary Table 2. Combined survival analysis of LAMA3 and LAMC2 expression in GSE21501 PDAC patients.**

| Variables | MST (months) | *P* value | HR (95%CI) | *P* value |
|---|---|---|---|---|
| Low LAMA3+Low LAMC2 | 35 | **0.010** | | **0.017** |
| Low LAMA3+High LAMC2 | 19 | | 1.66(0.77-3.58) | 0.201 |
| High LAMA3+Low LAMC2 | 16 | | 2.23(0.99-5.01) | 0.053 |
| High LAMA3+High LAMC2 | 14 | | 2.77(1.47-5.24) | **0.002** |

Notes: *HR for the univariate Cox proportional hazards regression analysis.
Abbreviations: PDAC, pancreatic ductal adenocarcinoma; MST, median survival time; HR, hazard ratio; CI, confidence interval.

**Supplementary Table 3. Expression of laminin gene family in PDAC datasets and serum LAMC2 and CA19-9 level enrolled in this study.**

| Datasets | First author | Year | Variables | No. | non-tumor Mean | SD | No. | PDAC Mean | SD | P value | AUC | 95%CI lower | upper | P value |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GSE28735 (1, 2) | Zhang G | 2012 | LAMA3 | 45 | 4.84 | 0.58 | 45 | 6.19 | 0.80 | <0.001 | 0.910 | 0.847 | 0.972 | <0.001 |
| | | | LAMA4 | 45 | 6.42 | 1.17 | 45 | 7.18 | 0.66 | <0.001 | 0.939 | 0.892 | 0.987 | <0.001 |
| | | | LAMB3 | 45 | 4.39 | 0.88 | 45 | 6.74 | 1.14 | <0.001 | 0.700 | 0.590 | 0.811 | 0.001 |
| | | | LAMC2 | 45 | 4.98 | 1.25 | 45 | 7.88 | 1.24 | <0.001 | 0.937 | 0.890 | 0.985 | <0.001 |
| GSE32676 (3) | Donahue TR | 2011 | LAMA3 | 7 | 5.20 | 1.92 | 25 | 8.94 | 1.50 | <0.001 | 0.926 | 0.820 | 1 | 0.001 |
| | | | LAMA4 | 7 | 8.13 | 0.98 | 25 | 8.41 | 1.15 | 0.572 | 0.646 | 0.405 | 0.887 | 0.245 |
| | | | LAMB3 | 7 | 4.52 | 2.16 | 25 | 9.39 | 1.50 | <0.001 | 0.954 | 0.864 | 1 | <0.001 |
| | | | LAMC2 | 7 | 4.27 | 1.65 | 25 | 9.20 | 1.68 | <0.001 | 0.977 | 0.932 | 1 | <0.001 |
| GSE55643 (4) | Lunardi S | 2014 | LAMA3 | 7 | 5.49 | 1.42 | 45 | 7.45 | 1.67 | 0.005 | 0.810 | 0.655 | 0.964 | 0.009 |
| | | | LAMA4 | 7 | 12.67 | 1.14 | 45 | 13.07 | 0.89 | 0.267 | 0.508 | 0.276 | 0.740 | 0.947 |
| | | | LAMB3 | 8 | 13.72 | 1.46 | 45 | 15.21 | 1.52 | 0.014 | 0.781 | 0.636 | 0.926 | 0.018 |
| | | | LAMC2 | 8 | 7.72 | 1.43 | 45 | 9.91 | 1.91 | 0.025 | 0.848 | 0.744 | 0.951 | 0.003 |
| GSE56560 (5, 6) | Haider S | 2014 | LAMA3 | 7 | 84.17 | 21.21 | 28 | 263.05 | 147.33 | <0.001 | 1 | 1 | 1 | <0.001 |
| | | | LAMA4 | 7 | 173.70 | 38.43 | 28 | 631.87 | 167.24 | <0.001 | 1 | 1 | 1 | <0.001 |
| | | | LAMB3 | 7 | 155.92 | 64.35 | 28 | 799.61 | 503.45 | <0.001 | 0.99 | 0.964 | 1 | <0.001 |
| | | | LAMC2 | 7 | 100.20 | 56.12 | 28 | 1177.88 | 622.80 | <0.001 | 1 | 1 | 1 | <0.001 |
| GSE62165 (7) | Janky R | 2016 | LAMA3 | 13 | 6.05 | 1.38 | 118 | 9.33 | 1.10 | <0.001 | 0.952 | 0.889 | 1 | <0.001 |
| | | | LAMA4 | 13 | 6.71 | 0.71 | 118 | 8.73 | 0.53 | <0.001 | 0.983 | 0.950 | 1 | <0.001 |
| | | | LAMB3 | 13 | 5.59 | 1.55 | 118 | 9.73 | 0.91 | <0.001 | 0.980 | 0.951 | 1 | <0.001 |
| | | | LAMC2 | 13 | 6.48 | 1.25 | 118 | 10.85 | 0.88 | <0.001 | 0.996 | 0.989 | 1 | <0.001 |
| GSE62452 (8) | Yang S | 2016 | LAMA3 | 61 | 4.64 | 0.54 | 69 | 5.89 | 0.82 | <0.001 | 0.899 | 0.845 | 0.953 | <0.001 |
| | | | LAMA4 | 61 | 6.03 | 1.18 | 69 | 6.83 | 0.73 | <0.001 | 0.708 | 0.615 | 0.800 | <0.001 |
| | | | LAMB3 | 61 | 4.38 | 0.84 | 69 | 6.46 | 1.29 | <0.001 | 0.906 | 0.857 | 0.955 | <0.001 |
| | | | LAMC2 | 61 | 4.66 | 1.24 | 69 | 7.30 | 1.43 | <0.001 | 0.909 | 0.860 | 0.958 | <0.001 |
| GSE91035 | Schmittgen T | 2016 | LAMA3 | 25 | 8.79 | 1.48 | 25 | 10.42 | 1.96 | 0.002 | 0.725 | 0.581 | 0.869 | 0.006 |
| | | | LAMA4 | 25 | 8.18 | 1.12 | 25 | 9.63 | 1.12 | <0.001 | 0.816 | 0.698 | 0.934 | <0.001 |
| | | | LAMB3 | 25 | 9.78 | 2.05 | 25 | 12.18 | 2.49 | 0.001 | 0.774 | 0.642 | 0.907 | 0.001 |
| | | | LAMC2 | 25 | 9.06 | 1.82 | 25 | 11.77 | 2.48 | <0.001 | 0.797 | 0.667 | 0.926 | <0.001 |
| GSE101448 (9) | Klett H | 2018 | LAMA3 | 19 | 8.36 | 0.83 | 24 | 10.41 | 1.31 | <0.001 | 0.877 | 0.766 | 0.988 | <0.001 |
| | | | LAMA4 | 19 | 9.53 | 0.74 | 24 | 11.13 | 0.49 | <0.001 | 0.996 | 0.984 | 1 | <0.001 |
| | | | LAMB3 | 19 | 9.44 | 1.21 | 24 | 13 | 1.32 | <0.001 | 0.954 | 0.889 | 1 | <0.001 |
| | | | LAMC2 | 19 | 8.66 | 0.74 | 24 | 11.56 | 1.19 | <0.001 | 0.954 | 0.885 | 1 | <0.001 |
| GSE102238 | Sun Y | 2017 | LAMA3 | 50 | 4.16 | 0.67 | 50 | 3.88 | 0.43 | 0.015 | 0.620 | 0.510 | 0.730 | 0.039 |
| | | | LAMA4 | 50 | 11.49 | 0.83 | 50 | 12.16 | 0.57 | <0.001 | 0.744 | 0.645 | 0.844 | <0.001 |
| | | | LAMB3 | 50 | 4.60 | 0.54 | 50 | 4.26 | 0.36 | <0.001 | 0.309 | 0.204 | 0.414 | 0.001 |
| | | | LAMC2 | 50 | 10.57 | 1.52 | 50 | 11.66 | 0.75 | <0.001 | 0.714 | 0.605 | 0.822 | <0.001 |
| USA cohort (10) | Hari Kosanam | 2013 | LAMC2 | 35 | 141.71 | 179.05 | 50 | 499.82 | 326.85 | <0.001 | 0.845 | 0.759 | 0.931 | <0.001 |
| | | | CA19-9 | 35 | 23.91 | 42.6 | 50 | 2486.0 | 3804 | <0.001 | 0.863 | 0.787 | 0.940 | <0.001 |

| Cohort | Author | Year | Biomarker | N | Mean | SD | N | Mean | SD | p | AUC | CI lower | CI upper | p |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 6 | | 6 | .24 | | | | | |
| German cohort (10) | Hari Kosanam | 2013 | LAMC2 | 100 | 220.23 | 247.59 | 100 | 440.95 | 344.88 | <0.001 | 0.695 | 0.621 | 0.768 | <0.001 |
| | | | CA19-9 | 100 | 17.51 | 64.50 | 100 | 602.33 | 1552.56 | <0.001 | 0.847 | 0.791 | 0.903 | <0.001 |
| Japan cohort (10) | Hari Kosanam | 2013 | LAMC2 | 50 | 139.91 | 144.24 | 50 | 382.20 | 311.23 | <0.001 | 0.787 | 0.695 | 0.878 | <0.001 |
| | | | CA19-9 | 50 | 101.24 | 611.75 | 50 | 1699.73 | 3096.52 | 0.001 | 0.827 | 0.739 | 0.914 | <0.001 |

Abbreviations: PDAC, pancreatic ductal adenocarcinoma; SD, standard deviation; AUC, area under the curve; CI, confidence interval.

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