Supplementary Table1: Details of 51 patients with diverse malignancies.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Patient | TC | IC | PD-L1 mRNA expression | sPD-L1 expression  (pg/mL) | Age | Gender | Smoking status | Tumor type | Distant metastasis |
| 1 | 0% | 2% | 2.33 | 217.21 | 73 | Male | Yes | Intrahepatic cholangiocarcinoma | No |
| 2 | 40% | 3% | 4.63 | 211.49 | 46 | Male | Yes | Lymphoma | No |
| 3 | 0% | 0% | 0.52 | 29.59 | 41 | Male | No | NSCLC | Yes |
| 4 | 0% | 0% | 0.84 | 74.27 | 56 | Male | Yes | NSCLC | Yes |
| 5 | 0% | 3% | 3.51 | 173.69 | 44 | Female | No | Breast cancer | No |
| 6 | 0% | 0% | 3.10 | 79.77 | 53 | Male | Yes | NSCLC | Yes |
| 7 | 0% | 0% | 5.28 | 163.78 | 55 | Female | No | NSCLC | Yes |
| 8 | 0% | 0% | 1.09 | 47.49 | 44 | Male | Yes | SCLC | No |
| 9 | 0% | 0% | 2.97 | 24.88 | 74 | Male | Yes | NSCLC | Yes |
| 10 | 0% | 0% | 1.12 | 9.74 | 48 | Male | No | NSCLC | Yes |
| 11 | 2% | 0% | 3.89 | 193.67 | 63 | Female | No | NSCLC | Yes |
| 12 | 5% | 3% | 12.36 | 39.60 | 54 | Male | Yes | NSCLC | Yes |
| 13 | 3% | 2% | 2.38 | 75.94 | 46 | Female | No | NSCLC | Yes |
| 14 | 0% | 0% | 0.62 | 44.39 | 67 | Male | Yes | NSCLC | Yes |
| 15 | 0% | 0% | 1.15 | 36.42 | 61 | Male | Yes | NSCLC | Yes |
| 16 | 0% | 0% | 1.13 | 70.41 | 55 | Male | No | NSCLC | Yes |
| 17 | 45% | 0% | 6.67 | 197.89 | 71 | Male | No | NSCLC | Yes |
| 18 | 0% | 0% | 1.58 | 31.12 | 56 | Female | No | NSCLC | Yes |
| 19 | 0% | 0% | 0.95 | 56.19 | 66 | Female | No | NSCLC | Yes |
| 20 | 0% | 0% | 0.78 | 27.89 | 64 | Male | Yes | SCLC | No |
| 21 | 0% | 0% | 2.11 | 66.3 | 53 | Male | Yes | NSCLC | Yes |
| 22 | 0% | 0% | 3.46 | 70.07 | 61 | Female | No | Gastric adenocarcinoma | No |
| 23 | 0% | 0% | 1.60 | 45.00 | 50 | Female | No | NSCLC | Yes |
| 24 | 0% | 0% | 0.72 | 35.50 | 51 | Female | No | Endometrial cancer | No |
| 25 | 80% | 0% | 13.45 | 51.05 | 59 | Male | Yes | NSCLC | Yes |
| 26 | 0% | 0% | 0.90 | 39.34 | 47 | Female | No | Breast cancer | No |
| 27 | 0% | 0% | 9.06 | 89.05 | 44 | Female | No | Breast cancer | No |
| 28 | 0% | 0% | 0.89 | 132.07 | 55 | Female | No | NSCLC | Yes |
| 29 | 0% | 0% | 0.77 | 14.48 | 54 | Male | Yes | SCLC | No |
| 30 | 65% | 3% | 8.82 | 89.38 | 56 | Female | No | Mediastinal cancer | No |
| 31 | 0% | 0% | 13.18 | 5.67 | 77 | Male | Yes | NSCLC | Yes |
| 32 | 35% | 3% | 2.69 | 34.61 | 66 | Male | No | NSCLC | Yes |
| 33 | 70% | 0% | 2.83 | 176.13 | 63 | Male | Yes | NSCLC | Yes |
| 34 | 0% | 0% | 0.75 | 53.40 | 65 | Male | No | Esophagus cancer | No |
| 35 | 50% | 5% | 2.35 | 134.92 | 78 | Male | Yes | NSCLC | Yes |
| 36 | 0% | 0% | 1.45 | 34.96 | 49 | Male | Yes | Colorectal cancer | No |
| 37 | 0% | 0% | 0.97 | 228.6 | 61 | Female | No | NSCLC | Yes |
| 38 | 0% | 0% | 0.91 | 58.16 | 50 | Male | Yes | SCLC | No |
| 39 | 0% | 0% | 0.30 | 161.34 | 42 | Female | No | NSCLC | Yes |
| 40 | 0% | 0% | 2.28 | 47.44 | 71 | Male | No | NSCLC | Yes |
| 41 | 0% | 0% | 0.71 | 17.19 | 70 | Male | No | SCLC | No |
| 42 | 0% | 0% | 0.55 | 30.13 | 60 | Female | No | NSCLC | Yes |
| 43 | 0% | 0% | 0.51 | 30.54 | 54 | Female | No | NSCLC | Yes |
| 44 | 85% | 0% | 21.30 | 55.66 | 61 | Male | Yes | NSCLC | Yes |
| 45 | 0% | 0% | 1.00 | 68.77 | 68 | Male | No | SCLC | No |
| 46 | 1% | 1% | 4.53 | 53.19 | 42 | Female | No | Breast cancer | No |
| 47 | 0% | 0% | 0.60 | 45.32 | 62 | Male | No | NSCLC | Yes |
| 48 | 60% | NA | 18.98 | 41.46 | 64 | Male | Yes | NSCLC | Yes |
| 49 | 5% | 3% | 1.26 | 40.11 | 73 | Female | No | NSCLC | Yes |
| 50 | 0% | 0% | 3.10 | 182.42 | 65 | Female | No | Breast cancer | No |
| 51 | 1% | 1% | 1.56 | 286.54 | 74 | Male | Yes | NSCLC | Yes |

TC, tumor cell, IC, immune cell, sPD-L1, soluble PD-L1, NSCLC, non-small cell lung cancer, SCLC, small cell lung cancer.

PD-L1 mRNA expression is normalized to 10 heathy donors’ expression.