

**Table. S4. The expression levels of six genes in training and validation dataset.**

| <b>Genes</b>                   | <b>Tumor tissues</b> | <b>Normal tissues</b> | <b>Fold change</b> | <b><i>P</i>-value*</b> |
|--------------------------------|----------------------|-----------------------|--------------------|------------------------|
| <b>TCGA</b>                    |                      |                       |                    |                        |
| <i>IL13RA2</i>                 | 3.71±2.14            | 1.35±1.36             | 2.76               | 0.00039057             |
| <i>IL20</i>                    | 2.12±2.04            | 0.40±0.51             | 5.30               | 0.005825023            |
| <i>SAA2</i>                    | 5.67±2.52            | 2.13±1.69             | 2.67               | 7.82×10 <sup>-6</sup>  |
| <i>FABP6</i>                   | 4.20±2.30            | 2.01±1.85             | 2.09               | 0.0022409              |
| <i>CHGB</i>                    | 3.10±2.42            | 6.15±2.40             | 0.50               | 7.32×10 <sup>-5</sup>  |
| <i>RORC</i>                    | 5.63±2.77            | 7.99±3.75             | 0.70               | 0.007951905            |
| <b>Meta-validation dataset</b> |                      |                       |                    |                        |
| <i>IL13RA2</i>                 | 7.34±1.71            | 6.22±1.42             | 1.18               | 9.86×10 <sup>-14</sup> |
| <i>IL20</i>                    | 8.19±1.50            | 7.77±0.82             | 1.05               | 0.0001673              |
| <i>SAA2</i>                    | 8.56±2.08            | 8.54±2.41             | 1.01               | 0.9551                 |
| <i>FABP6</i>                   | 10.02±2.33           | 10.51±1.73            | 0.95               | 0.009206               |
| <i>CHGB</i>                    | 8.31±1.94            | 8.22±1.39             | 1.01               | 0.5716                 |
| <i>RORC</i>                    | 7.08±1.21            | 10.23±1.87            | 0.69               | 2.20×10 <sup>-16</sup> |

\**P*-value was derived from t-test.